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ABSTRACT

Three sections describing the Washington Pre-College Test (WPC) are presented. The first, Registration Booklet, is intended for high school students who may take the WPC. It describes the program; provides detailed instructions on completing the answer folder; lists colleges in Washington, Oregon, and Idaho which accept WPC results; and includes several registration items. These are: the Vocational Interest Inventory, background information items, and choice of college major or occupation. Sixteen sample achievement/ability test items are also presented. Section Two provides technical information for high school and college counselors. Each of the WPC components is described, and uses of the test for career planning are suggested. Over 50 bibliographic references are appended. The third section provides norms for students taking the academic subtests (English usage, spelling, reading comprehension, vocabulary, applied mathematics, mathematics achievement, spatial ability, mechanical reasoning, verbal composite, and quantitative composite) and the eight-category vocational inventory. Directions are presented to help the student examine career values, and to plan the amount of schooling required for a particular career. Extensive tables show which Washington community and four-year colleges offer various programs of study. (GDC)

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Washington Pre-College Test

Registration Booklet
1979 Edition

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Use This Booklet To
Complete Your WPC Test
Answer Folder, Then Keep It
For Reference

TM800 062

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THE WASHINGTON PRE-COLLEGE TEST

Students today are faced with a rapidly expanding number of career opportunities. Making decisions about which career directions to follow is now quite complex. The Washington Pre-College (WPC) test can help students learn more about themselves and their career options and thus make better-informed career decisions and plans.

How the WPC test can help you.

The WPC test measures a number of different abilities that are important for success in college and the world-of-work. Specifically, the WPC test assesses language, math, mechanical reasoning, and spatial perception abilities. (Sample items for these areas appear on pages 26-29 of this booklet.)

Your career interests are also measured by the WPC test. Your results will show what college course areas and jobs are related to your highest interest areas.

WPC collects your high school transcript (grades 9 through 11) from your school and provides a summary of it to you along with your interest and ability scores. You can then see the relationships among your scores and grades to help you identify career options. This record of your grades is accepted by many colleges in place of your actual transcript for the early admissions process.

Finally, WPC provides you with estimations of your performance in a large number of college subject areas. These estimations, based on your high school grades and WPC ability scores, will give you an idea of how you might perform in many college courses.

Institutional Uses of the WPC test.

There are two major types of institutional uses of the WPC test. First, while you are in high school, your counselor can help you interpret WPC test results and use WPC student materials in making career plans. These might include deciding on which college to attend, choosing a college major, selecting courses, and focusing on occupations you may want to consider.

A large number of both two and four year postsecondary institutions (mostly in Washington but also in some other states) use WPC test data for admissions, placement, advising, registration, and counseling purposes. The back cover of this booklet lists all those Washington, Oregon, and Idaho colleges which accept and use WPC data. (Specific questions concerning detailed use of WPC results at a particular institution should, of course, be addressed directly to that institution.)

Interpretation Materials.

WPC will provide you and your counselor with all materials necessary to make optimum use of your test results. This will include a WPC Guidance Report that contains the following information -

* Your WPC ability test scores
* Your WPC vocational interest scores
* Similarity of your interests to college graduates in several major study areas
* Your high school transcript summary
* Your estimated levels of performance in different college course areas

Five copies of your WPC Guidance Report will be sent directly to your high school after your 11th grade transcript is received. Four copies are for you and one is for your school's files. You may obtain extra copies from the WPC office for $1.00 each. (The address is listed on the back cover of this booklet.)

You will also receive a WPC Student Guide. This booklet will help you understand WPC test results and show you how to use them in career decision-making and planning. It will also provide sections for you to examine your work values and assess your career skills in areas that are hard to measure on a test. Finally, the booklet will list course areas at all Washington postsecondary institutions plus a large number of jobs and show you which ones relate to your particular vocational interests.

Procedures for taking the WPC test.

The Washington Pre-College Testing Program is a cooperative non-profit agency of high schools and colleges in the state of Washington. As such, many of these institutions serve as testing centers around the state. Your counselor will tell you when and where the WPC test is to be given in your area. You should plan to arrive 30 minutes before the test is scheduled to begin.

The WPC test takes about three hours to complete. The test fee is $9.00 which covers the cost of all materials, processing, and reporting results back to you. This $9.00 is to be paid as you enter the testing session. You should bring the exact fee with you to the session. (In case of financial hardship, this fee can be waived by your principal or counselor.)

The WPC test is given entirely in English. You should bring your WPC test answer folder and three or four sharpened No. 2 pencils with erasers to the testing session with you. (You must have filled out pages 1, 2, and 3 of the answer folder before arriving at the testing session. Instructions for this will be provided later on in this booklet.) As this is a standardized test, no books, notebooks, slide rules, dictionaries, calculators, or other supporting materials will be permitted in the testing session.

Finally WPC recommends that you study the sample items on pages 26-29 of this booklet so that you understand the nature of the WPC test. No other preparation is recommended.

INSTRUCTIONS FOR COMPLETING THE WPC TEST ANSWER FOLDER

Please complete pages 1, 2, and 3 of the WPC answer folder and bring it with you to the testing session. This will be your registration information which is required as part of the WPC test. (You must have these pages completed prior to the testing session. The test administrator will not permit you to take the test unless these three pages are completed.)

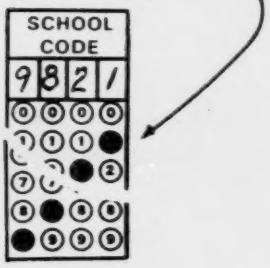
All information that you provide WPC will be kept confidential. It will be released to your high school, to those colleges you list (should they request it), or by additional requests in writing from you. Also, as an additional service to students and institutions, WPC routinely sends a listing of all students who took the WPC test each year to all two- and four-year institutions in Washington. This listing is sent after students graduate from high school and reflects the cooperative nature of WPC. This is done for students who may wish at a later date to transfer from one institution to another, return to school in a few years, or so that colleges will have one central file of all students' WPC scores. If you do not wish to take advantage of this free service, please contact the WPC office directly in writing.

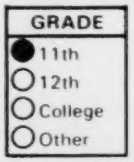
Please read all instructions very carefully. Be sure to check the examples for each section. Mark all of your responses on the WPC answer folder carefully and neatly. Use only a No. 2 pencil. To enter information, blacken the appropriate circle for your response with your pencil. Make no stray marks on the answer folder as these could lead to errors on your form. Erase all mistakes throughly.

WPC ANSWER FOLDER - PAGE 1

Turn your WPC answer folder, page 1, on its side with "Name of School" in the upper left-hand corner. Print in the name of your school in the space provided.

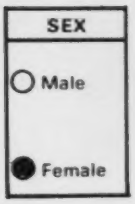
School Code No. Your school's code number may be found in the High School and College Code list on pages 7-10 of this booklet. Print, in the spaces provided, the code number of your present school. Then blacken the corresponding circles below each digit. Please check to be sure that you have entered and blackened the correct code. Any error will result in your test results being sent to the wrong school.



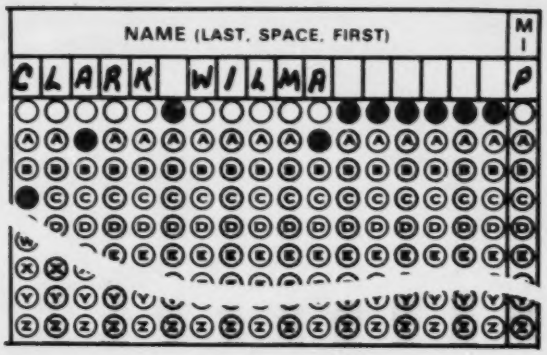


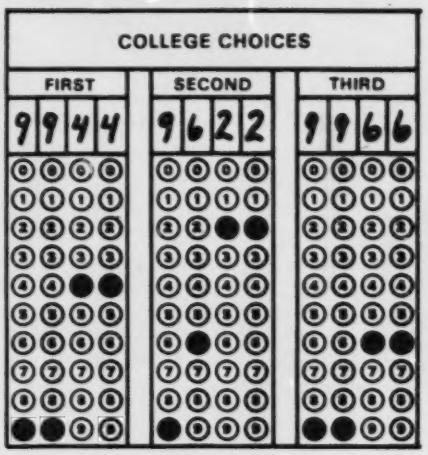
Grade. Blacken the appropriate circle to indicate your present grade.

Sex. Blacken the appropriate circle to indicate your sex.



Name. Print your name, last name first, in the spaces provided - start at the first space at the left. Leave a single blank space after your last name and then print your first name. Print your middle initial in the space provided (MI). If there is not enough room for your complete first name, enter as much as possible, but be sure to include all of your last name and your middle initial. Then, under each letter you have printed, blacken the corresponding circle. To indicate blank spaces, blacken the blank circles above the A that correspond to the blank space between your last and first name and the blank spaces after your first name (if any).



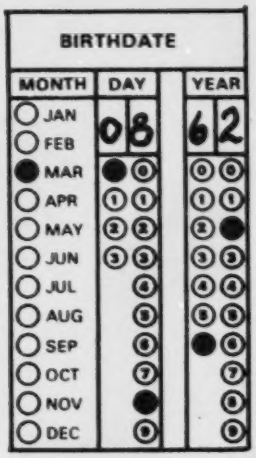


College Choices. You may list your first, second, and third college choices on this form. By so doing, you inform WPC and these institutions of your college choices. Colleges often request WPC to send them the records of students interested in their institution. Your listing of these three colleges gives us permission to release this information SHOULD WE BE REQUESTED TO DO SO BY THE INSTITUTIONS. We will not forward this information to them without their request.

Colleges may wish to use the data in the admissions screening process or to contact you about educational opportunities and programs that match your interests. WPC has developed this service to aid colleges in serving you, their prospective student. WPC recommends that you give permission for the release of your data to the colleges of your choice, should they request it, by listing them on this form.

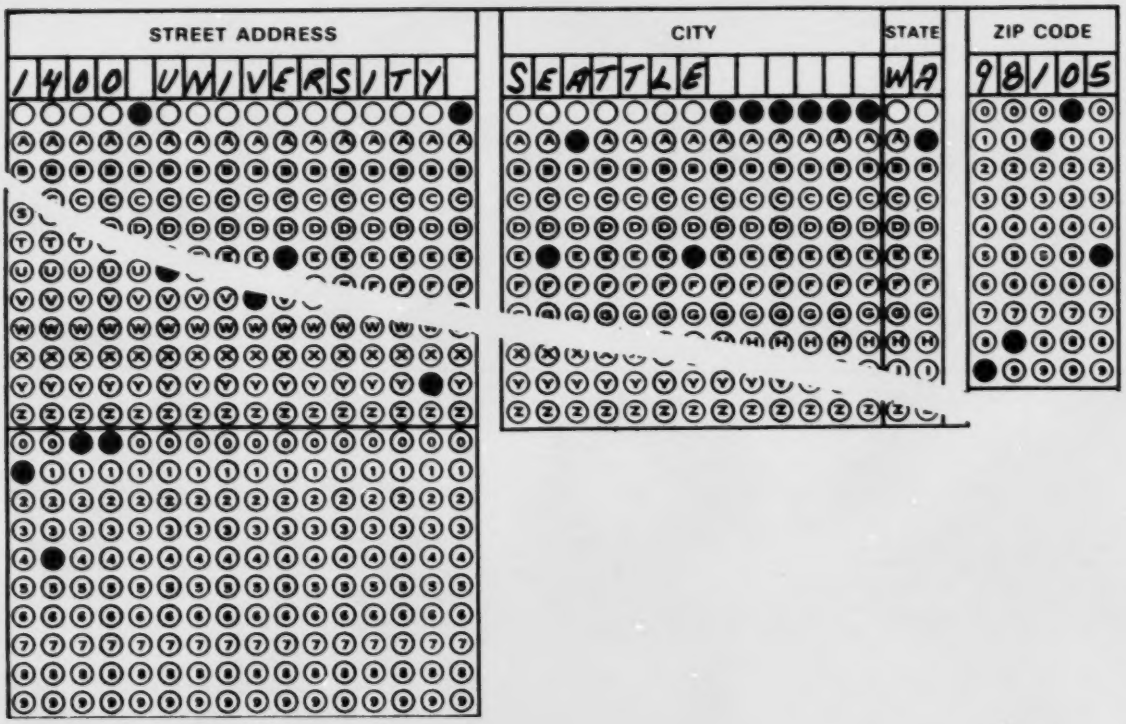
In the spaces provided, print the code numbers of your three college choices found in the High School and College Code List on pages 7-10 of this booklet. Then blacken the corresponding circles below the numbers.

Birthdate. Blacken the appropriate circle for the month of your birth. Then write in the day and year and blacken the corresponding circles below each.

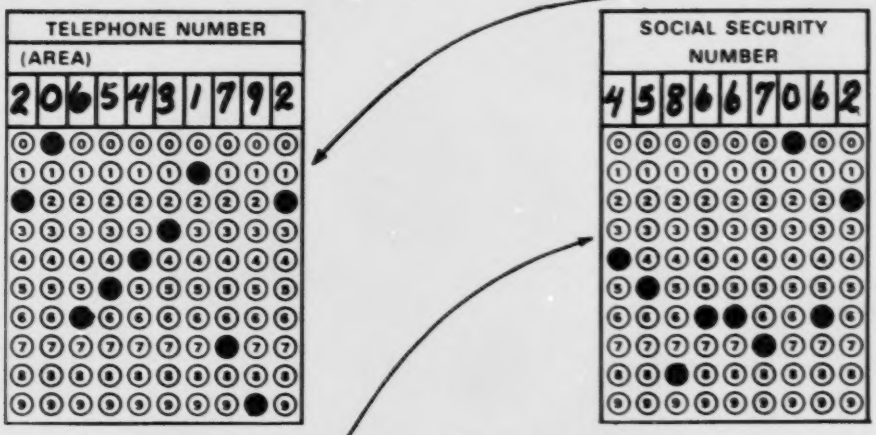


WPC ANSWER FOLDER - PAGE 2

Street Address, City, State, and Zip Code. Print your street address, city, state abbreviation, and zip code in the spaces provided. Leave a single space between words and between your street number and street name. Then, under each letter or number you have printed, blacken the corresponding circle. For the spaces you have left blank, blacken the empty circle above the A circle to indicate a blank space.



Telephone Number. Print your area code and telephone number in the spaces provided. Then, blacken the corresponding circles below each of the numbers.



Social Security Number. Print your social security number in the spaces provided. Then, under each number, blacken the corresponding circle.

Signature and Date. Sign and date this form in the space provided. Your signature verifies the truth of the information you have provided.

SIGNATURE: Wilma P. Clark

DATE: March 1, 1979

HIGH SCHOOL AND COLLEGE CODE LIST

HIGH SCHOOLS

0481 Adams High School
0036 Adna High School
0048 Almira High School
0063 Anacortes High School
0075 Anatone High School
2903 Annie Wright High School
0087 Arlington High School
0099 Asotin High School
0101 Auburn Academy
0113 Auburn High School

3437 Bainbridge High School
2183 Ballard High School
0127 Battle Ground High School
2927 Bellarmine Preparatory
0164 Bellevue Christian School
0176 Bellevue High School
0202 Bellingham High School
2637 Bethel High School
4225 Bethesda Christian Center
0238 Bickleton High School

0240 Blaine High School
2195 Blanchet High School
1228 Boistfort High School
3641 Bonners Ferry ((Idaho)
0253 Bothell High School
4047 Bremerton Christian School
4237 Bremerton High School
0291 Brewster High School
0303 Bridgeport High School
0341 Burlington-Edison High School

4163 Calvary Baptist School
0366 Camas High School
4023 Capitol High School
3730 Carrol High School
0861 Cascade High School
0380 Cashmere High School
0392 Castle Rock High School
2587 Central Kitsap High School
3235 Central Valley High School
0416 Centralia High School

2930 Charles Wright High School
0430 Chelan High School
0442 Cheney High School
0467 Chimacum High School
0479 Clallam Bay High School
0505 Cle Elum High School
2206 Cleveland High School
4035 Clover Creek Baptist High School
2942 Clover Park High School
0517 Colfax High School

0531 Colton High School
3653 Columbia Academy
0339 Columbia High School (Burbank)
1065 Columbia High School (Hunters)
2105 Columbia High School (Richland)
3173 Columbia River High School
0556 Colville High School
0568 Concrete High School
0570 Connell High School
0582 Coulee City High School

0606 Coupeville High School
1103 Crescent High School
0620 Creston High School
0632 Curlew High School
2978 Curtis High School
0644 Cusick High School
0657 Darrington High School
0669 Davenport High School
3476 Davis High School
0671 Dayton High School

3917 Decatur High School
0683 Deer Park High School
3261 De Sales High School
2663 East Valley High School (Spokane)
1659 East Valley High School (Yakima)
0745 Eastmont High School
0719 Easton High School
0758 Eatonville High School
0760 Edmonds High School
3488 Eisenhower High School

0796 Ellensburg High School
0808 Elma High School
0822 Endicott High School
0834 Entiat High School
0846 Enumclaw High School
0859 Ephrata High School
0873 Everett High School
2220 Evergreen High School (Seattle)
3185 Evergreen High School (Vancouver)
4199 Faith Baptist Christian School

4086 Far East Academy
0897 Federal Way High School
0909 Ferndale High School
2688 Ferris High School
2954 Fife High School
2170 Forrest Ridge High School
3197 Fort Vancouver High School
2245 Foster High School
2257 Franklin High School (Seattle)
2966 Franklin Pierce High School (Tacoma)

0923 Freeman High School
0935 Friday Harbor High School
0947 Garfield High School (Garfield)
2358 Garfield High School (Seattle)
3552 Gem State Academy (Idaho)
2269 Glacier High School
0962 Glenwood High School
0974 Goldendale High School
2690 Gonzaga High School
1002 Grandview High School

1014 Granger High School
1026 Granite Falls High School
3956 Hanford High School
1038 Harrington High School
3703 Hazen High School
2271 Helen Bush School
4008 Henry Foss High School
0618 Highland High School
2284 Highline High School
2319 Holy Names Academy (Seattle)

1053 Hoquiam High School
3208 Hudson's Bay High School
4098 Ichthus Student Community
1077 Ilwaco High School
2334 Immaculate High School
1089 Inchelium High School
0265 Inglemoor High School
2346 Ingraham High School
3665 Interlake High School
1092 Issaquah High School

3715 Jefferson High School
0455 Jenkins High School
2675 Joseph Jantsch High School
3582 Juanita High School
1115 Kahlotus High School
1127 Kalama High School
4062 Kalm Brae High School
3516 Kamiakin High School
1139 Kelso High School
3742 Kennedy High School

HIGH SCHOOLS

1154 Kennewick High School
1178 Kent-Meridian High School
3728 Kentridge High School
1193 Kettle Falls High School
2360 Kings Garden High School
4148 Kings Temple High School
0226 Kiona-Benton High School
1216 Kittitas High School
1230 Klickitat High School
1243 La Center High School

1267 La Conner High School
1279 Lacrosse High School
3829 Lake Roosevelt High School
1281 Lake Stevens High School
1204 Lake Washington High School
1294 Lakes High School
2372 Lakeside High School
4200 Landgren Christian Academy
1317 Langley High School
3591 Laurelwood Academy (Idaho)

1329 Leavenworth High School
3855 Lester High School
2738 Lewis & Clark High School
3692 Lewiston High School (Idaho)
4011 Liberty Bell High School
4150 Liberty High School (Issaquah)
0885 Liberty High School (Spangle)
2385 Lincoln High School (Seattle)
2981 Lincoln High School (Tacoma)
1344 Lind High School

3932 Lindbergh High School
1368 Long High School
1370 Lopez Island High School
1382 Lyle High School
1395 Lynden Christian High School
1406 Lynden High School
3867 Lynnwood High School
1418 Mabton High School
1420 Mansfield High School
1432 Manson High School

3843 Maple Lane High School
3793 Mariner High School
1356 Mark Morris High School
0810 Mary M. Knight High School
2841 Mary Walker High School
2740 Marycliff High School
1471 Marysville High School
1483 Mead High School
0772 Meadowdale High School
1496 Medical Lake High School

1519 Mercer Island High School
0214 Meridian High School
3602 Milo Academy (Oregon)
1572 Monroe High School
1597 Montesano High School
1608 Morton High School
3968 Moscow High School (Idaho)
1610 Moses Lake High School
1622 Mossyrock High School
0695 Mount Baker High School

3564 Mount Ellis High School
1180 Mount Rainier High School
1723 Mount Si High School
3006 Mount Tahoma High School
1634 Mount Vernon High School
0784 Mountlake Terrace High School
3831 Mountlake Christian High School
1661 Naches Valley High School
1673 Napavine High School
1605 Naselle Grays River High School

2397 Nathan Hale High School
1698 Neah Bay High School
4074 New Life Christian High School
0188 Newport High School (Bellevue)
1709 Newport High School (Newport)
1711 Nooksack Valley High School
1558 North Beach High School
2752 North Central High School
1964 North Kitsap High School
0152 North Mason High School

0315 North River High School
1255 North Thurston High School
1735 Northport Union High School
2764 Northwest Christian High School
3894 Nova High School
1750 Oak Harbor High School
1748 Oaksdale High School
1762 Oakville High School
3350 Ocosta High School
2408 Odea High School

1774 Odessa High School
4109 Off-Campus High School
1786 Okanogan High School
1800 Olympia High School
1812 Omak High School
1836 Onalaska High School
0721 Orcas Island High School
1849 Oroville High School
1851 Orting High School
1863 Othello High School

3971 Overlake High School
1875 Palouse High School
1887 Pasco High School
1890 Pateros High School
1901 Pe Ell High School
0950 Peninsula High School
1913 Peshastin-Dryden High School
1925 Pomeroy High School
1937 Port Angeles High School
1952 Port Townsend High School

3614 Portland Union Academy
1976 Prescott High School
1988 Prosser High School
4175 Pullman Christian School
1991 Pullman High School
2004 Puyallup High School
2410 Queen Anne High School
2016 Quilcene High School
0911 Quillayute High School
0051 Quinault High School

2028 Quincy High School
4112 R.E.A.L. School
2422 Rainier Beach High School
2031 Rainier High School
2055 Raymond High School
2067 Reardan High School
2079 Redmond High School
2082 Renton High School
2094 Republic High School
2117 Ridgefield High School

2129 Ritzville High School
1533 Riverside High School
1166 Riverview High School
2132 Rochester High School
3754 Rogers High School (Puyallup)
2725 Rogers High School (Spokane)
2435 Roosevelt High School
2144 Rosalia High School
2168 Royal High School
0190 Sammamish High School

HIGH SCHOOLS

2498 Sealth High School
2461 Seattle Christian High School
2486 Seattle Prep High School
2543 Sedro Woolley High School
3678 Sehome High School
2550 Selah High School
1521 Selkirk High School
2562 Sequim High School
2789 Shadle Park High School
2574 Shelton High School

2511 Shorecrest High School
2509 Shoreline High School
4059 Shorewood High School
2599 Skykomish High School
2600 Snohomish High School
2612 Soap Lake High School
2624 South Bend High School
1940 South Kitsap High School
2839 Sprague High School
2776 St. George's High School

2156 St. John High School
0936 St. Placid High School
3021 Stadium High School
2853 Stanwood High School
2865 Stevenson High School
2877 Sultan High School
3983 Summit High School
2880 Sumner High School
2892 Sunnyside High School
1445 Tahoma High School

3057 Tekoa High School
3069 Tenino High School
3072 Thorp High School
3804 Timberline High School
3081 Toledo High School
0378 Tolt High School
3096 Tonasket High School
3107 Toppenish High School
3119 Touchet High School
3122 Toutle Lake High School
3134 Trout Lake High School

3146 Tumwater High School
2473 Tyee High School
2814 University High School
4124 University Preparatory School
2651 Upper Columbia Academy
0354 Vashon Island High School
0428 W.F. West High School
0404 Wahkiakum High School
3247 Waitsburg High School
3274 Walla Walla High School

0529 Walla Walla Valley Academy
3286 Wapato High School
3298 Warden High School
3766 Washington High School
3309 Washougal High School
3311 Washtucna High School
3324 Waterville High School
2523 Watson-Green High School
0012 Weatherwax High School
3336 Wellpinit High School

3348 Wenatchee High School
4187 Wenatchee Valley Christian School
2536 West Seattle High School
3526 West Valley High School (Yakima)
1546 West Valley High School (Millwood)
2043 White Pass High School
0327 White River High School
3362 White Salmon High School
3387 White Swan High School
3399 Wilbur High School

1507 Willapa Valley High School
3400 Wilson Creek High School
3425 Winlock High School
0024 Wishkah Valley High School
3451 Wishram High School
3463 Woodland High School
3045 Woodrow Wilson High School
3779 Woodway High School
3538 Yelm High School
3540 Zillah High School
4213 Zion Faith Academy

COLLEGES

Washington

9695 Bellevue Community College
9656 Bellingham Vocational-Technical Institute
9721 Big Bend Community College
9947 Central Washington University
9959 Centralia Community College
9403 City College
9935 Clark Community College
9683 Clover Park Vocational-Technical Institute
9923 Columbia Basin Community College
9392 Cornish Institute of Applied Arts
9911 Eastern Washington University
9644 Edmonds Community College
9908 Everett Community College
9632 Fort Steilacoom Community College
9885 Fort Wright College
9873 Gonzaga University
9582 Grays Harbor Community College
9618 Green River Community College
9733 Highline Community College
9757 L.H. Bates Vocational-Technical Institute
9669 Lake Washington Vocational-Technical Institute
9861 Lower Columbia Community College
9570 North Seattle Community College
9568 Northwest College of the Assemblies of God
9671 Olympia Technical Community College
9858 Olympic Community College
9846 Pacific Lutheran University

9745 Peninsula Community College
9380 Prometheus College
9504 Renton Vocational-Technical Institute
9810 Saint Martin's College
9555 Seattle Central Community College
9834 Seattle Pacific University
9986 Seattle University
9620 Shoreline Community College
9822 Skagit Valley Community College
9543 South Seattle Community College
9531 Spokane Community College
9719 Spokane Falls Community College
9378 The Sulpician Seminary of the Northwest
9706 Tacoma Community College
9897 The Evergreen State College
9605 University of Puget Sound
9998 University of Washington
9974 Walla Walla College
9529 Walla Walla Community College
9962 Washington State University
9807 Wenatchee Valley Community College
9796 Western Washington University
9517 Whatcom Community College
9784 Whitman College
9772 Whitworth College
9760 Yakima Valley Community College

COLLEGES

Oregon

9366 Bassist Institute
9353 Blue Mountain Community College
9341 Central Oregon Community College
9339 Chemeketa Community College
9327 Clackamas Community College
9315 Clatsop Community College
9415 Columbia Christian College
9307 Concordia College
9291 Eastern Oregon State College
9428 George Fox College
9289 Judson Baptist College
9277 Lane Community College
9265 Lewis and Clark College
9430 Linfield College
9252 Linn-Benton Community College
9240 Marylhurst Education Center
9238 Mount Hood Community College
8984 Multnomah School of the Bible
9226 Museum Art School
9214 Northwest Christian College
9201 Oregon College of Education
9190 Oregon Institute of Technology
9188 Oregon State University
9442 Pacific University
9176 Portland Community College
9164 Portland State University
9454 Reed College
9151 Rogue Community College
9149 Southern Oregon State College
9137 Southwestern Oregon Community College
9125 Treasure Valley Community College
9113 Umpqua Community College
9100 University of Oregon
9467 University of Portland
9479 Warner Pacific College
9099 Western Baptist Bible College
9087 Western Conservative Baptist Seminary
9075 Western Evangelical Seminary
9431 Willamette University

Idaho

9063 Boise State University
9493 College of Idaho
9050 College of Southern Idaho
9048 Idaho State University
9036 Lewis-Clark State College
9024 North Idaho College
9012 Northwest Nazarene College
9009 Ricks College
8996 University of Idaho

WPC ANSWER FOLDER - PAGE 3

VOCATIONAL INTEREST INVENTORY

Given by the Washington Pre-College Testing Program

The Vocational Interest Inventory (VII) will help you examine your vocational preferences. Your results should be helpful in making career plans. Please answer ALL questions even if you are quite uncertain. If you omit as many as 10 items, the VII cannot be scored.

PART A - OCCUPATIONS

Which one of the following two occupations interests you more? Pick the ONE occupation from each pair that you prefer and blacken the corresponding circle.

1.	(A)	state legislator	(B)	rehabilitation supervisor
2.	(A)	certified public accountant	(B)	FBI agent
3.	(A)	police chief	(B)	drafter
4.	(A)	flight attendant	(B)	landscape gardener
5.	(A)	veterinary attendant	(B)	companion
6.	(A)	proofreader's helper	(B)	cook's helper
7.	(A)	supervisor of parole and probation	(B)	television dance director
8.	(A)	public relations worker	(B)	school counselor
9.	(A)	furniture store manager	(B)	insurance agent
10.	(A)	demonstrator-salesperson	(B)	jewelry and watch repairer
11.	(A)	construction laborer	(B)	used car salesperson
12.	(A)	medical laboratory technician	(B)	poll interviewer
13.	(A)	agent for top movie stars	(B)	history professor
14.	(A)	theatrical speculator	(B)	stage designer
15.	(A)	personnel manager	(B)	employee counselor

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16.	(A)	housing development salesperson	(B)	bank exchange clerk
17.	(A)	office assistant	(B)	fur-cutting machine operator
18.	(A)	messenger	(B)	ranch hand
19.	(A)	biochemist	(B)	civil service administrator
20.	(A)	attorney at law	(B)	salary and wage administrator
21.	(A)	studio photographer	(B)	buyer for department store
22.	(A)	recreation leader	(B)	computer programmer
23.	(A)	interior painter and paper hanger	(B)	telephone sales solicitor
24.	(A)	assistant in carpenter's workshop	(B)	stockroom helper
25.	(A)	director of fisheries	(B)	electrical engineering professor
26.	(A)	human factors engineer	(B)	dental surgeon
27.	(A)	technical writer	(B)	dressmaking factory supervisor
28.	(A)	graphic artist	(B)	printing press operator
29.	(A)	house parent	(B)	greenhouse attendant
30.	(A)	ice cream vendor	(B)	tree planter
31.	(A)	international banker	(B)	oceanographer
32.	(A)	wildlife range manager	(B)	safety engineer
33.	(A)	berry farmer	(B)	biology research assistant
34.	(A)	book indexer	(B)	agriculture extension aide
35.	(A)	sign painter	(B)	farm laborer
36.	(A)	public health laboratory helper	(B)	police assistant
37.	(A)	Congressional lobbyist	(B)	bacteriologist
38.	(A)	pharmacist	(B)	purchasing manager
39.	(A)	weather observer	(B)	air-ground radio operator
40.	(A)	forestry technician	(B)	science instructional technician

41.	(A)	library page	(B)	pharmacy aide
42.	(A)	stagehand	(B)	hospital orderly
43.	(A)	editor of scholarly journal	(B)	counseling psychologist
44.	(A)	English teacher	(B)	jewelry sales director
45.	(A)	hotel manager	(B)	justice of the peace
46.	(A)	hand typesetter	(B)	copy reader
47.	(A)	teacher aide	(B)	assistant caretaker in zoo
48.	(A)	newspaper copy assistant	(B)	optical laboratory helper
49.	(A)	law professor	(B)	orchestra conductor
50.	(A)	stage actress or actor	(B)	prison social services director
51.	(A)	real estate salesperson	(B)	gymnastics coach
52.	(A)	singer	(B)	secretary
53.	(A)	baker	(B)	illustrator of greeting cards
54.	(A)	deckhand	(B)	photograph finisher
55.	(A)	professor of art	(B)	physician
56.	(A)	professional tennis player	(B)	junior high school principal

CHECK TO MAKE SURE YOU JUST MARKED NUMBER 56 FOR PART A. GO ON TO PART B.

PART B - ACTIVITIES

Which one of the following pair of statements is more true for you? Pick only ONE from each pair that you prefer and blacken the corresponding circle.

1. I am impressed with a barber who (A) works freely and creatively
   (B) is helpful and wants to please me

2. I would rather (A) baby-sit
   (B) talk people into voting for our schools

3. I would rather learn to (A) repair a bicycle
   (B) use a microscope

4. For a school play I would prefer to (A) take care of lighting
   (B) direct the play

5. I would rather watch a television interview with a university professor in
   (A) American literature
   (B) nutritional research

6. I would rather talk to (A) an orchestra conductor
(B) a shrimpboat operator

7. In working on a political campaign I would rather
(A) be outdoors putting up posters
(B) do artwork on campaign posters

8. I would rather watch a film short on (A) "Aviation Yesterday and Today"
(B) "Understanding Banking"

9. I'd rather buy a booked called (A) How to Cut Your Own and Anyone Else's Hair
(B) Growing Plants in the City

10. In helping out at high school I would rather be
(A) a locker room assistant
(B) on a stage crew

11. At a family camp I would rather (A) direct a musical
(B) paint cabins

12. For my lodge or club dance I would rather be in charge of (A) finances
(B) entertainment

13. If I were a teacher I would rather teach (A) history
(B) biology

14. I would rather visit a (A) museum of modern art
(B) new community library

15. For a traveling singing group I would rather be the (A) physician
(B) business manager

16. In my high school I would rather (A) campaign to be a class officer
(B) manage and do the bookkeeping for the school store

17. While visiting a ranch I would rather work with
(A) ranch hands rounding up horses
(B) a veterinarian inoculating colts

18. In London I would rather (A) visit historical Westminster Abbey
(B) listen to a concert by Scottish pipers

19. For my birthday I would rather receive a (A) calculator
(B) camera

20. In my neighborhood I would rather earn extra money
(A) distributing door-to-door advertising
(B) helping out with a scout troop

21. I would rather be good at (A) parole and probation casework
(B) raising flowers and vegetables

22. On an airplane flight I would rather listen on my earphones to
(A) pilot-traffic control conversation
(B) the news

23. If I took an adult evening class I would rather learn to be a more
(A) persuasive speaker
(B) effective writer

24. In the summer I would rather learn
(A) to entertain others as a magician
(B) how to sell real estate

25. If I joined the Army I would rather be trained to
(A) be a van driver
(B) maintain lawns, trees, and walks on public lands

26. If I bought an old car I would rather spend time
(A) making mechanical repairs
(B) bargaining over the price

27. For my political party I would rather
(A) go door-to-door collecting contributions
(B) do the bookkeeping and accounts

28. If I were going to spend a lot of money for an evening, I would prefer
(A) going to hear a famous jazz pianist
(B) fixing a fancy meal for friends

29. I would rather spend an afternoon (A) making a picture frame
(B) trimming trees

30. I would rather visit (A) a doctor
(B) an insurance salesperson

31. For my class yearbook I would rather
(A) find advertisers
(B) write a column on study habit hints

32. Before school I would rather (A) work in the school office using the adding machine
(B) assist people across a school crossing

33. My friends tend to be (A) well-read
(B) interested in being in the outdoors

34. As a hospital volunteer I'd prefer to help
(A) with layout and design of a display for the lobby
(B) take x-rays of patients

35. If I were retired I would rather volunteer to help out (A) in an office
(B) picking fruit

36. In picking out a paperback mystery I would prefer one set in
(A) a research laboratory
(B) the jungle

37. If I were in the armed forces I would rather be trained as a
(A) computer programmer
(B) medical technologist

38. I prefer (A) organizing projects and getting them underway
(B) getting things done in a flexible and creative style

39. At an airport I would rather watch the work of
(A) air traffic control
(B) security police

40. I would rather have a spouse who worked
(A) helping people
(B) in a hospital laboratory

41. I think it would be more fun to assist
(A) people going in and out of buildings
(B) caring for the physical injuries of animals

42. I would rather (A) bid at an auction of unclaimed goods
(B) watch a loggers' competition

43. I am more interested in looking into a school that trains you in
(A) working with pets, horses, or outdoor management
(B) self-confidence, effective speaking,and selling skills

44. I have more admiration for someone who
(A) knows a lot about history
(B) can rescue drowning persons

45. If our neighborhood built a playground, I would rather supervise
(A) purchasing
(B) recreation workers

46. I like movies about problems of
(A) teaching in city schools
(B) rehabilitating drug addicts

47. If I were dividing up household chores with my roommates I'd rather
(A) keep track of our expenses, pay bills, etc.
(B) learn how to fix simple things around the house

48. If I were learning something new to do in my spare time I'd rather learn how to (A) draw cartoons
(B) influence others' opinions

49. For someone's birthday I'd rather give
(A) materials for a bookcase you can construct by yourself
(B) a book

50. If I moved into a new house I would prefer to
(A) clear rubbish from yard and cut grass
(B) supervise movers unloading furniture and household goods

51. I would rather answer the telephone in a
(A) public relations firm
(B) doctor's office

52. If I worked for a politician, I would rather
    (A) write speeches
    (B) arrange a speaking tour to major cities

53. I would rather have a friend who
    (A) could sell anything to anybody
    (B) was a mechanical genius

54. I would be happier at a school where most students were taking
    (A) college preparatory courses
    (B) business administration and commercial courses

55. I would rather assist someone
    (A) working to discover new knowledge
    (B) reorganizing a valuable governmental agency

56. If I were an administrator I would rather work for the
    (A) department of agriculture
    (B) justice system

For the remaining items on page 3 of your WPC answer folder, blacken the circle corresponding to your response. It is important that you respond to each question. However, if you do not wish to answer a particular question, you may skip that question.

BACKGROUND INFORMATION

1. Are you a United States citizen?

   Y (YES) N (NO)

2. By the time you start college classes, will you have resided in Washington continuously for at least one year?

   Y (YES) N (NO)

3. Do you, your parents, or your spouse work for a federal governmental agency or work at least 20 hours per week for any Washington public college or university?

   Y (YES) N (NO)

4. Have you served, or are you now serving, in the United States Armed Forces?

   Y (YES) N (NO)

5. Most colleges make special provisions for students with certain types of physical handicaps. This item can help colleges provide prospective students with information about such programs.

   Do you have a physical handicap that may require special provisions from the college you attend?

   Y (YES) N (NO)

6. To which ethnic group do you belong?

   A. Afro-American/Black
   B. American Indian/Native American
   C. Asian American
   D. Caucasian/White
   E. Mexican-American/Chicano
   F. Other

REQUESTS FOR HELP

In college I will need help with: [Mark Y(YES) or N(NO) for each]

1. Mathematics skills
2. Written English skills
3. Reading skills
4. Study skills
5. Deciding educational and vocational goals

COLLEGE REGISTRATION PLANS

1. Do you plan to register as a:

   A. Full-time student
   B. Part-time student

2. When do you plan to enter?

   A. Summer quarter or summer session 1979
   B. Fall quarter or fall semester 1979
   C. Winter quarter 1979-80
   D. Spring quarter or spring semester 1980
   E. Summer quarter or summer session 1980
   F. Fall quarter or fall semester 1980
   G. Winter quarter 1980-81
   H. Spring quarter or spring semester 1981
   I. I am now in college

3. In college, where do you plan to live?

   A. Residence hall
   B. Off-campus room or apartment
   C. With parents or with relatives
   D. Married student housing
   E. Fraternity or sorority house

4. What best describes your final educational goal?

   A. Vocational or technical program (less than 2 years)
   B. Two-year college degree
   C. Start a two-year college, then transfer to earn a four-year degree
   D. Start directly in a four-year college to earn a four-year degree
   E. One or two years of graduate study
   F. Professional-level degree (PhD, MD, LLB, JD, etc.)
   G. Other

5. Have you previously earned college credit?

   Y (YES) N (NO)

6. What is your planned major? (Pick your major from the List of College Majors and Occupational Choices on pages 20-21 and blacken the three digit number in the corresponding circles.)

7. How sure are you of your planned major?

   A. Very sure
   B. Fairly sure
   C. Not sure

8. What is your planned occupation? (Pick your occupation from the List of College Majors and Occupational Choices on pages 20-21 and blacken the three digit number in the corresponding circles.)

9. How sure are you of your planned occupation?

   A. Very sure
   B. Fairly sure
   C. Not sure

LIST OF COLLEGE MAJORS AND OCCUPATIONAL CHOICES

100 AGRICULTURE, general
101 Agriculture Business
102 Agriculture and Farm Management
103 Agriculture and Forestry Technology
104 Agronomy (crops and management)
105 Animal Science (husbandry)
106 Fish, Game, and Wildlife Management
107 Forestry
108 Horticulture
109 Natural Resources Management

120 ARCHITECTURE, general
121 Architectural Technology
122 City, Community, and Regional Planning
123 Interior Design
124 Landscape Architecture
125 Urban Architecture

130 BIOLOGICAL SCIENCE, general
131 Biology
132 Biochemistry
133 Botany
134 Ecology
135 Marine Biology
136 Microbiology
137 Zoology

140 BUSINESS AND MANAGEMENT, general
141 Accounting
142 Banking and Finance
143 Business Economics
144 Business Management and Administration
145 Hotel and Restaurant Management
146 Marketing and Purchasing
147 Office Management
148 Real Estate and Insurance
149 Transportation and Public Utilities

150 COMMUNICATIONS, general
151 Advertising
152 Communications Media (use of videotape, film, etc. in radio/TV)
153 Journalism
154 Radio/TV

160 COMMUNITY SERVICE, general
161 Law Enforcement and Correction
162 Military
163 Parks and Recreation Management
164 Social Work

170 COMPUTER AND INFORMATION SCIENCES, general
171 Computer Programming
172 Systems Analysis

180 EDUCATION, general
181 Art Education
182 Business, Commerce, Distributive Education
183 Counselor Education
184 Educational Administration
185 Elementary Education
186 English Education
187 Home Economics Education
188 Industrial Arts Education
189 Mathematics Education
190 Music Education
191 Physical Education/Recreation Education
192 Science Education
193 Secondary Education
194 Social Science Education
195 Special Education
196 Speech Education

200 ENGINEERING, general
201 Aerospace/Aeronautical/Astronautical Engineering
202 Agricultural Engineering
203 Architectural Engineering
204 Chemical Engineering
205 Civil Engineering
206 Electrical/Electronic Engineering
207 Environmental Engineering
208 Industrial and Management Engineering
209 Mechanical Engineering
210 Mining and Mineral Engineering
211 Nuclear Engineering
212 Ocean Engineering

220 FINE AND APPLIED ARTS, general
221 Applied Design (ceramics, weaving, commercial art, etc.)
222 Art (painting, drawing, sculpture)
223 Art History and Appreciation
224 Dance
225 Dramatic Arts
226 Music (liberal arts program)
227 Music (performing, composition, theory)
228 Photography or Cinematography

230 FOREIGN LANGUAGE, general
231 Asian Languages
232 Classical Languages
233 French
234 German
235 Italian
236 Russian
237 Spanish

240 HEALTH PROFESSIONS, general
241 Chiropractic
242 Dentistry/Predentistry
243 Dental Assistant
244 Dental Hygiene
245 Environmental Health Technology
246 Medicine/Premedicine
247 Medical Assistant
248 Medical Laboratory Technology
249 Nursing (registered nurse)
250 Nursing (licensed practical nurse)
251 Occupational Therapy
252 Optometry
253 Physical Therapy
254 Radiology
255 Surgical Assistant
256 Veterinary Medicine/Preveterinary Medicine

260 HOME ECONOMICS
261 Clothing and Textiles
262 Consumer Economics and Home Management
263 Family Relations and Child Development
264 Foods and Nutrition
265 Institutional and Cafeteria Management

270 HUMANITIES, general
271 Classics
272 Creative Writing
273 English, general
274 Linguistics
275 Literature
276 Philosophy
277 Religion

280 MATHEMATICS, general
281 Applied Mathematics
282 Statistics

290 PERSONAL SERVICES, general
291 Flight Attendant
292 Cosmetologist
293 Barber

300 PHYSICAL SCIENCE, general
301 Astronomy
302 Atmospheric Science and Meteorology
303 Chemistry
304 Earth Sciences
305 Geology
306 Oceanography
307 Physics

310 SECRETARIAL SCIENCE, general
311 Secretarial Studies
312 Keypunch Operator

320 SOCIAL SCIENCES, general
321 Anthropology
322 Archaeology
323 Area Studies (Asia, Africa, Europe, etc.)
324 Economics
325 History
326 International Relations
327 Law/Prelaw
328 Library Science
329 Political Science
330 Psychology
331 Sociology

340 TRADE, INDUSTRIAL, AND TECHNICAL, general
341 Air Conditioning, Refrigeration, Heating Technology
342 Aeronautical and Aviation Technology
343 Automotive Body Repair
344 Automotive Mechanics
345 Carpentry and Construction
346 Data Processing Technology and Repair
347 Drafting or Engineering Graphics
348 Electricity/Electronics
349 Engineering Technology
350 Graphic Arts
351 Heavy Equipment Operating
352 Machinist
353 Plumbing and Pipefitting
354 Printing and Lithography
355 Radio/TV Repair
356 Small Engine Repair
357 Welding
358 Woodworking, Cabinetmaking, Millworking

360 OTHER
000 UNDECIDED

HIGH SCHOOL EXTRACURRICULAR ACTIVITIES

In high school I participated in the following extracurricular activities. [Mark Y(YES) or N(NO) for each]

1. Student government
2. Publications (newspaper, yearbook, etc.)
3. Instrumental music
4. Vocal music
5. Debate
6. Drama, theater
7. Varsity athletics
8. Intramural athletics
9. Political organizations
10. Racial or ethnic organizations
11. Religious clubs
12. Departmental clubs
13. Radio or TV
14. Fraternity or sorority
15. Special interest groups (drill team, ski club, sailing club, etc.)
16. Campus or community service organizations

COLLEGE EXTRACURRICULAR INTERESTS

In college I plan to participate in these extracurricular activities. [Mark Y(YES) or N(NO) for each]

1. Student government
2. Publications (newspaper, yearbook, etc.)
3. Instrumental music
4. Vocal music
5. Debate
6. Drama, theater
7. Varsity athletics
8. Intramural athletics
9. Political organizations
10. Racial or ethnic organizations
11. Religious clubs
12. Departmental clubs
13. Radio or TV
14. Fraternity or sorority
15. Special interest groups (drill team, ski club, sailing club, etc.)
16. Campus or community service organizations

HIGH SCHOOL PROGRAMS

In high school I was enrolled in advanced placement, accelerated, or honors programs in the following areas. [Mark Y(YES) or N(NO) for each]

1. English
2. Mathematics
3. Natural sciences
4. Social sciences
5. Foreign language

OUT OF CLASS ACTIVITIES

Mark Y(YES) or N(NO) for each

Work Experience

1. Held a regular part-time job.
2. Held a full-time job during the summer.
3. Participated in a work-study, distributive education, or cooperative work program in school.
4. Earned money by selling goods or services.
5. Supervised the work of others.

Student Leadership

1. Held a student office.
2. Held a leadership position outside of school.
3. Actively campaigned in a school or non-school election.
4. Participated in a movement to change institutional rules or procedures.
5. Received special recognition for leadership.

Science

1. Wrote a paper on a scientific topic which received a very high grade in school.
2. Performed an independent scientific experiment outside of school.
3. Participated in a National Science Foundation or other type of scientific summer program.
4. Participated in a school or non-school science contest.
5. Won an award at a school or non-school science contest.

Art

1. Completed a work of art on my own outside of school.
2. Had artwork published in a school or non-school newspaper or magazine.
3. Exhibited a work of art at school.
4. Exhibited a work of art outside of school.
5. Received an award at a school or non-school art competition.

Speech/Drama

1. Entered a school or non-school speech or debate contest.
2. Received an award in a school or non-school speech or debate contest.
3. Had a role in a school or non-school play.
4. Appeared in a film, on radio, or TV as a performer.
5. Helped with directing, set design, or production of a play.

Music

1. Composed music.
2. Played a musical instrument.
3. Performed with a school or non-school musical group.
4. Gave a public individual or group music recital.
5. Participated in a school or non-school music contest.

Writing

1. Worked as a staff member on the school paper, magazine, or yearbook.
2. Had poems, stories, or articles published in a school or non-school publication.
3. Completed an original but unpublished piece of creative writing on my own outside of school.
4. Received an award or recognition for something I had written.
5. Had a creative writing work published in a school or non-school literary magazine or newspaper.

Community Service

1. Received recognition for a club, organization activity (4-H, Scouts, etc.) or other type of community service involvement.
2. Taught in a church or synagogue or led a religious service on a regular basis.
3. Worked as a volunteer in a hospital, clinic, or home.
4. Was active in programs involving civic improvement or which helped develop community or neighborhood pride.
5. Participated in a program to assist those who were handicapped mentally, physically, educationally, or economically.

Athletics

1. Participated in a school varsity athletic team event.
2. Earned a varsity letter in a sport in high school.
3. Received all-city, league, or county (including honorable mention) athletic recognition.
4. Participated in an organized athletic competition outside of school.
5. Participated in an individual athletic activity (swimming, running, etc.) outside of school.

FINANCIAL AID

1. Do you plan to apply for financial aid to help meet college expenses?

   Y (YES) N (NO)

2. Will you need help in finding part-time employment when in college?

   Y (YES) N (NO)

3. Colleges need to know the level of income for entering students to plan financial aid programs. Please estimate your annual family income (before taxes).

   A. Less than $4,999
   B. $5,000 to $9,999
   C. $10,000 to $14,999
   D. $15,000 to $19,999
   E. $20,000 to $24,999
   F. Over $25,000

COLLEGE PROGRAM INTERESTS

In college I will be interested in these special programs. [Mark Y(YES) or N(NO) for each]

1. Honors program
2. Independent study program
3. Advanced placement in math
4. Advanced placement in English
5. Advanced placement in natural science
6. Advanced placement in social science
7. Advanced placement in French
8. Advanced placement in Spanish
9. Advanced placement in German
10. Advanced placement in another language
11. Foreign study

COLLEGE CHOICE FACTORS

1. I plan to attend the following type of institution.

   A. Two-year community college
   B. Four-year private college
   C. Four-year state college or regional university
   D. State university
   E. Vocational-technical institute
   F. Business college
   G. Undecided

2. Please rate each of the seven factors below as to whether it is very important (V), somewhat important (S), or unimportant (U) in your choosing a college.

   A. Type of college (2-year, 4-year, private, etc.)
   B. Tuition cost
   C. Size of college
   D. Size of city in which the institution is located
   E. Availability of your major area of interest
   F. Closeness to your home
   G. Other

This is the end of the registration information you are required to complete prior to taking the WPC Test.

SAMPLE ITEMS FOR THE WPC TEST

It may help you to see the kinds of test items that are on the WPC test. The following will give you an idea of the content of the eight subtests and their question format. These examples may be easier or more difficult than the actual test items. Answers to these sample items are on page 29.

English Usage Subtest. This subtest attempts to measure your facility in locating errors in punctuation, grammar, English usage, etc. In each question you are to determine which of the underlined portions of the sentence contains an error, if any.

1. After saving for many years, (A) Mr. Gordon finally (B) saved enough money for a trip to new (C) Zealand. (D) No error. (E)

2. If you can't (A) find out whom (B) will be coming, (C) then it will be (D) necessary to cancel the meetings. No error. (E)

Spelling Subtest. This subtest measures your ability to pick out misspelled words. In each problem you must determine which one of four words is incorrectly spelled, if any.

1. A) relative
   B) recieve
   C) cycle
   D) propose
   E) no error

2. A) decide
   B) recover
   C) acquire
   D) sponser
   E) no error

Reading Comprehension Subtest. This subtest measures your ability to read a passage and then answer several questions about what you have read. After reading a passage, choose the best answer to each question.

Sample Passage

The science of surveying snow, ridiculed at first, is increasing rapidly in extent and importance. To grasp its significance, picture in our western states a series of snow-covered mountain ranges with dry intervening valleys. In such regions, where no rain falls from spring until late fall, the stream flow from high snow fields is the measure of life and prosperity. Abundant snow means abundant water, electricity, and crops. Dearth of snow means dry river beds, idle machinery, thirsty cattle, dying plants. Power companies build plants only where they can be assured of enough water, season after season, to turn their turbines. Western cities need to know far in advance whether or not the water supply for their great aqueducts will meet demands. Cattlemen turn stock out

into valleys where they know grass will remain green and springs will not dry up. And there are other questions which may be answered by the application of knowledge gained from snow; how deep the water will be in navigable rivers; how far salt tidal waters will force their way upstream and make the current unfit for irrigating delta orchards.

1. The best title for this passage would be:

   A) Snow: Its Importance in the Western United States
   B) The Value of Snow Surveying
   C) Skiing the Cascade Range
   D) Weather Conditions Necessary for Sufficient Snowfall
   E) The Pseudo Science of Snow Surveying

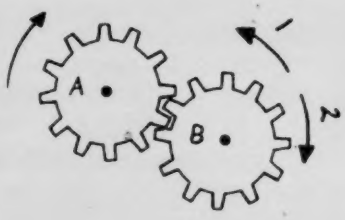
2. The passage implies that snow surveying:

   A) has little practical application
   B) is becoming more and more important
   C) has little use outside the United States
   D) is useful in predicting skiing conditions
   E) is used primarily by the power companies

Mechanical Reasoning Subtest. This test is designed to measure your knowledge of certain mechanical principles. For each question, select the answer you think is correct.

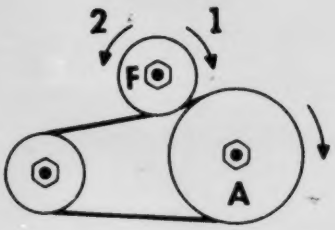
1. If a gear A turns in the direction shown, gear B will

   A) turn in direction 1
   B) turn in direction 2
   C) not turn



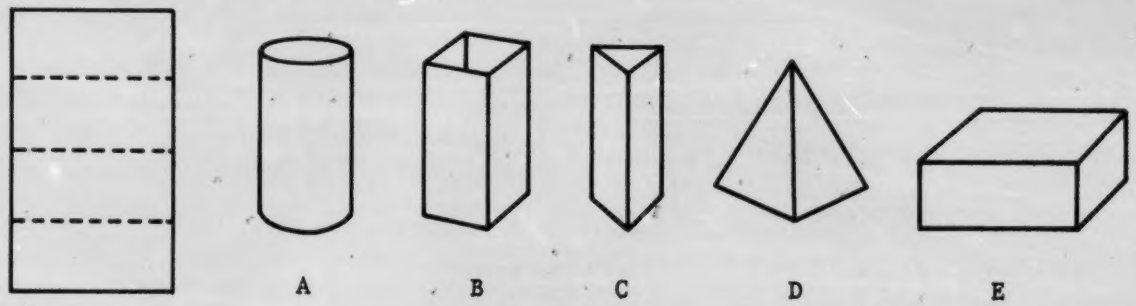
2. When wheel A turns in the direction shown, wheel F

   A) must turn in direction 1
   B) must turn in direction 2
   C) may turn in either direction

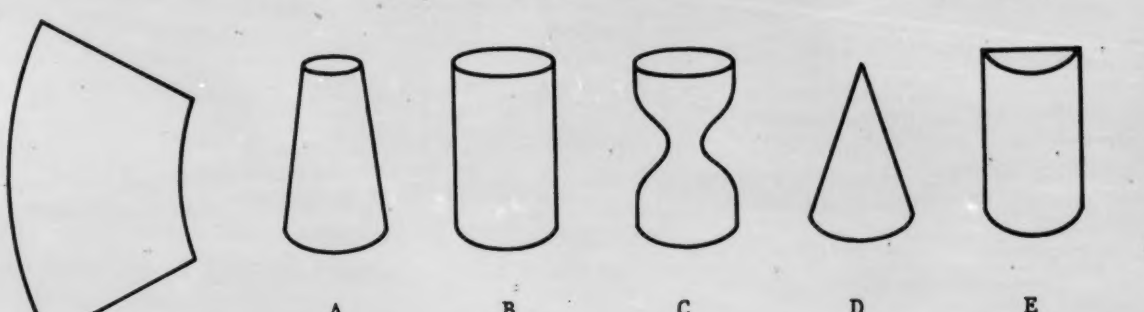


Spatial Ability Subtest. This test is designed to measure your ability to visualize mentally in three dimensions. For each question you are to determine which of five objects pictured would be formed by folding the flat object presented at the left of the item.

1.



2.



Applied Mathematics Subtest. In this test you are to solve the problem given.

1. A company charges $9.00 per year for a subscription to its monthly magazine. If the subscription rate is $23.00 for three years, how much money does one save on each issue?

   A) $ .11
   B) $ .64
   C) $ .75
   D) $ 4.00
   E) $14.00

2. What number, when divided by 8, gives a quotient of 6 and a remainder of 4?

   A) 32
   B) 38
   C) 48
   D) 52
   E) 56

Vocabulary Subtest. This test measures your knowledge of the meaning of words. In the following questions find the correct synonym to the word at the beginning of the item from the five choice words.

1. Inverse

A) conceal
B) vehement
C) reversed
D) serene
E) difficult

2. Feeble

A) clumsy
B) retarded
C) strong
D) immoral
E) weak

Mathematics Achievement Subtest. This subtest measures your skill in solving problems in arithmetic, algebra, geometry and other math you may have had in school. Determine the correct answer for each question.

1. If $2z = 3w$, then $w =$

A) $\frac{3}{2}z$

B) $6z$
C) $5z$
D) z

E) $\frac{2}{3}z$

2. If $q = -6$, which of the following has a negative value?

A) $-\frac{q}{3}$

B) $q - 3$
C) $-3q$
D) $-q - 3$
E) $-q + 3$

Answers to sample questions.

English Usage - 1. C, 2. B
Spelling - 1. B, 2. D
Reading Comprehension - 1. B, 2. B
Mechanical Reasoning - 1. A, 2. B
Spatial Ability - 1. B, 2. A
Applied Mathematics - 1. A, 2. D
Vocabulary - 1. C, 2. E
Mathematics Achievement - 1. E, 2. B

COLLEGES ACCEPTING WPC RESULTS

The following is a list of postsecondary institutions that have indicated they use WPC test results for admissions, placement, academic advising, or counseling purposes.

WASHINGTON

Bellevue Community College
Big Bend Community College
Central Washington University
Centralia Community College
Clark Community College
Columbia Basin Community College
Eastern Washington University
Edmonds Community College
Everett Community College
The Evergreen State College
Fort Steilacoom Community College
Fort Wright College
Gonzaga University
Green River Community College
Highline Community College
Lower Columbia Community College
North Seattle Community College
Olympic Community College
Olympia Technical Community College
Pacific Lutheran University
Peninsula Community College
Saint Martin's College
Seattle Central Community College
Seattle Pacific University
Seattle University
Shoreline Community College
Skagit Valley Community College
Spokane Community College
Spokane Falls Community College
Tacoma Community College
University of Puget Sound
University of Washington
Walla Walla College
Walla Walla Community College
Washington State University
Wenatchee Valley Community College
Western Washington University
Whatcom Community College
Whitman College
Whitworth College
Yakima Valley Community College

OREGON

Columbia Christian College
George Fox College
Lewis and Clark College
Linfield College
Pacific University
Reed College
University of Portland
Warner Pacific College
Willamette University

IDAHO

Boise State University
Lewis-Clark State College
College of Idaho

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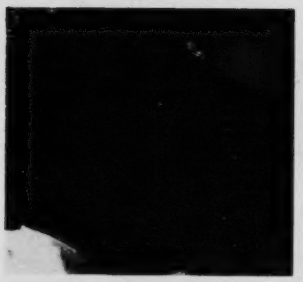
1979-80

Counselor's Guide and Technical Summary

Washington Pre-College Test



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This *Counselor's Guide* was written by Richard J. Noeth, Executive Director, The Washington Pre-College Testing Program. WPC staff members, WPC Research Committee members, and Jerald Forster, Clifford Lunneborg, and Patricia Lunneborg of the University of Washington provided numerous helpful suggestions in the preparation of this *Guide*.

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Part 1: Introduction and Overview

Students today are faced with rapidly expanding career opportunities. Making decisions about which career directions to follow is now quite complex. Students face a continual need for information and assistance in career decision-making and planning. In fact, help with career planning has typically been listed as a major area of need and concern by high school students (Prediger, Roth, & Noeth, 1974; Noeth, 1978).

How the Washington Pre-College Test Can Help

It is in career development, then, that the Washington Pre-College (WPC) Test can be of major help to students. This can be in the form of facilitating exploration of career-related interests and abilities, occupations, and postsecondary programs of study. It can also include helping students narrow or focus their thinking on a few occupations or areas of study to the point where they can formulate tentative career plans.

The WPC Test exists primarily as an assessment tool to assist college-bound students in making better-informed career plans and decisions. It contains eight cognitive ability and achievement subtests, a vocational interest measure (Lunneborg, 1977b), and expectancies of student performance for many different college course areas based on test scores and high school grades. It is this last aspect, the differential prediction of college-level performance, that contributes to the uniqueness of the WPC Test. The method of differential prediction was formulated by Horst (1954) early in the Program's history.

The WPC Test. The Washington Pre-College Test is an assessment program for high school career guidance and college admissions, placement, and advising. It is completed by almost 30,000 Washington college-bound students each year. The Washington Pre-College Testing Program, which published the Test, is a cooperative agency of the high schools and postsecondary institutions in the state. The Program had its beginning at the University of Washington in the 1940's. Since then the Program has become a statewide agency, the prototype having been described by Horst (1963). It is jointly governed by two groups representative of secondary and postsecondary institutions statewide: The Washington Council on High School-College Relations and the Washington Pre-College Testing committee.

The WPC Test measures a number of different abilities that are important for success in both postsecondary educational programs and in the world of work. Specifically, the WPC Test assesses the language skills of English usage, spelling, reading comprehension, and vocabulary, the quantitative skills of applied mathematics and mathematics achievement, spatial ability, and mechanical reasoning skill. These are described in detail on pages 2 and 3 in Part 2 of this *Counselor's Guide*.

Students' career related interests are also measured by the WPC Test. The Vocational Interest Inventory© (VII) assists students in examining their interests in eight career areas: service, sales (business contact), organization, technology, outdoor, science, general cultural, and arts and entertainment. VII results show students which occupations and postsecondary areas of study are related to their highest interest areas. VII components are described on page 3.

Through the WPC Test, students' transcripts (grades 9-11) are collected from their high schools. These are summarized to help students see the relationships among their Test scores and grades as they seek to identify career options. This record is also accepted by many colleges in place of the actual transcript for the early admissions process. The grade and credit summarization process is described in greater detail on page 3.

The WPC Test also provides students with estimations of their performance in a large number of college subject areas. These estimations, based on high school grades and WPC Test scores, are related to the VII areas and predict how students might perform in different college course areas. Procedures for these estimates are covered on page 4.

Using the WPC Test in High School and at Postsecondary Institutions. The WPC Test is intended for use at *both* secondary and postsecondary educational levels. Thus, there are two types of institutional uses of the WPC Test. Initially, at the high school level, counselors and other educators can help students interpret WPC Test results and use WPC student materials in making career plans. The uses might include helping students to:

- Explore occupational areas to consider
- Decide on which college to attend
- Focus on a postsecondary major area or program of study

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- Select courses to take in college
- Narrow occupational areas of consideration for tentative career decision-making and planning

A large number of two-and four-year postsecondary institutions (mostly in Washington but also in other states) use WPC Test information for admissions, registration, placement, advising, and counseling purposes. (The *WPC Registration Booklet* lists all Washington, Oregon, and Idaho Colleges which accept and use WPC Test data.) Admissions use of the WPC Test typically includes the combination of scores with high school grades by institutions to determine a student's eligibility for entrance to that college. Placement uses include considering WPC Test data along with other related academic information to help a student select the level of coursework appropriate to his or her present state of preparedness. Many postsecondary institutions, for example, use WPC Test data for placement into different levels of English and mathematics coursework. For advising and counseling purposes, the various components of the WPC Test are used to help students select a major, choose courses, plan for certain occupations, take remedial coursework, etc.

WPC Test Materials

A variety of materials constitute the complete WPC Test package:

- *WPC Test Information Poster.* Distributed to each high school prior to spring and fall testing, this poster gives students an overview of the WPC Test and allows counselors to inform them about when and where the Test is to be given in their area.
- *WPC Test Registration Booklet.* Revised yearly, this publication provides students with information about the WPC Test, lists sample items for each of the eight subtests that constitute the battery, and gives step-by-step instructions for completing the registration process. It also includes the VII which is completed at home by students.
- *WPC Test Answer Folder.* This four-sided, folded, machine scannable sheet is first used by students to complete all registration information, including the Vocational Interest Inventory, their college registration plans, extracurricular activities, etc. This is done at home. Students then use it to record their answers to the eight WPC subtests at the test center.
- *WPC Test Booklet.* This contains the eight subtests that constitute the WPC battery. These are secure booklets used by certified test centers during the testing sessions and kept at the WPC central office during the remainder of the year.
- *WPC Test Administration Manual.* This publication is used by test center supervisors as a step-by-step guide in administering the WPC Test to students.
- *WPC Test Guidance Report.* This computer-printed report presents students with their WPC Test scores, VII results, information on the similarity of their interests to college graduates in different major areas, a listing of selected career planning self-report items, a summary of their high school transcript, and estimations of their level of performance in different course areas. Interpretive information for each of these sections is provided on the back of the Report.
- *WPC Registration-Receipt Cards.* These are used at the beginning of the Test administration session. Students complete these cards, keeping one half as a receipt for their fee payment. The other half is sent to the WPC office as a record of the student's test registration.
- *WPC Test Student Guide.* This publication accompanies the WPC Guidance Report and provides additional interpretive information for the WPC Test. It shows students how to best use their WPC Test results for career exploration and planning. This booklet also lists course areas offered at all Washington postsecondary institutions plus a large number of jobs and shows how both relate to the different career interest areas.
- *WPC Test Counselor's Guide and Technical Summary.* This manual provides counselors and other educators with an overview of the WPC Test, information on all Test components, suggestions for interpretation, and a summary of all pertinent technical background for the WPC Test.
- *WPC Test Interpretation Transparency Masters.* A set of masters which can be used to make transparencies has been designed to aid counselors in interpreting WPC Test results to students. A brief narrative accompanies these masters.

Part 2: WPC Test Components and Testing Procedures

This part will acquaint counselors with each WPC Test component and with the procedures employed for administration, processing, and scoring. Further, more technical information about Test components is provided in Part 4 of this *Guide*.

WPC TEST COMPONENTS

WPC Ability/Achievement Measures

WPC Subtests. The WPC Test includes eight separately-timed ability/achievement subtests. Sample items are found in the *Registration Booklet*. The subtests are:

- English usage—a 20 minute, 45 item unit which tests knowledge of grammar, correct word usage, capitalization, and punctuation.
- Spelling—a 10 minute, 35 item subtest which measures the ability to identify a misspelled word from a choice of five words.
- Reading comprehension—a 22 minute unit containing 25 items about several paragraphs. This subtest assesses the ability to derive stated or implied meanings from the paragraphs.
- Vocabulary—a 12 minute, 45 item unit which tests knowledge of the meaning of words. Students select the correct synonym to a given word from five choices.
- Applied mathematics—a 22 minute, 20 item subtest which measures the ability to solve applied arithmetic and elementary algebra problems.
- Mathematics achievement—a 30 minute, 30 item unit which assesses knowledge of algebra and geometry.

- Spatial ability—a 10 minute, 20 item subtest which tests the ability to visualize how two dimensional figures would look in three dimensions if folded along certain lines.
- Mechanical reasoning—a 15 minute, 20 item unit which measures knowledge of physical principles as applied to mechanical devices.

WPC Test Composites. Two composite scores are derived from the English and mathemetical subtests of the WPC Test battery. These are:

- Verbal composite—a combination of the English usage, vocabulary, spelling, and reading comprehension subtests. The weight assigned to each subtest for this composite was determined by a factor analysis of the WPC battery which identified a strong verbal component within the Test. The four English subtests showed high factor weights on the verbal factor and these weights were then employed in the computation of the verbal composite score. This composite can be considered the standardized verbal factor score on the WPC Test.
- Quantitative Composite—a combination of the applied mathematics and mathematics achievement subtests. The weight assigned to each subtest for this composite, as with the verbal composite, was determined by a factor analysis of the WPC battery. This procedure identified a strong quantitative component within the Test. The two mathematical subtests showed high factor weights on the quantitative factor and these were then used in the computation of the quantitative composite score. This composite can be considered the standardized quantitative factor score on the WPC Test.

Vocational Interest Inventory

The Vocational Interest Inventory (VII) has been part of the WPC Test since 1970 (Lunneborg, 1979). It is an ipsative measure based on Roe's occupational classification scheme (1956). The VII is an untimed questionnaire consisting of 112 forced choice items divided equally into two sections, Occupations and Activities (Lunneborg, 1977b). Items consist of a pair of occupations or of activities and students choose the one they prefer. In each section, each of Roe's eight occupational areas is paired twice with each of the remaining seven areas.

The VII is contained in the *Registration Booklet*. The eight VII scales (i.e., Roe occupational areas) are:

- Service—attending to the needs and welfare of other persons through guidance, domestic, personal, and protective services. Examples include barber, cosmetologist, clinical psychologist, counselor, firefighter, minister, police officer, social worker, and waiter/waitress.
- Sales (Business Contact)—using face-to-face personal persuasion to sell commodities, services, investments. Examples include auto salesperson, insurance agent,lobbyist, public relations worker, and real estate broker.
- Organization—working as the manager, owner, supervisor, or office staff in business, industry, or government. Examples include accountant, administrator, manager, buyer, clerk, retail sales clerk, secretary, and bank teller.
- Technology—being concerned with production, maintenance, and transportation of commodities and utilities. Examples include data processor, drafter, electronics technician, engineer, factory worker, machine operator, mechanic, and pilot.
- Outdoor—being involved with agriculture, fishery, forestry, and mining. Examples include conservationist, farm worker, geologist, sailor, and surveyor.
- Science—employing scientific theory and its application in all natural sciences. Examples include dentist, doctor, laboratory technician, mathematician, nurse, physical therapist, veterinarian, and weather observer.
- General Cultural—working in occupations related to study in humanities and social science, activities that involve our social and cultural background. Examples include journalist, lawyer, linguist, and teacher.
- Arts and Entertainment—using special skills in creative or applied arts and entertainment. Examples include architect, commercial artist, designer, interior decorator, musician, photographer, and actor/actress.

High School Record

The grade and credit summary of the high school record presented on the WPC Guidance Report covers the ninth through eleventh grade for secondary school students and ninth through twelfth grades for those who take the Test in college. These summaries are prepared from students' transcripts sent to WPC directly from the high schools.

In recent years a number of schools have converted from traditional semester reporting periods to trimester reporting periods. All types of time-credit units, however, are converted to semester units when transcripts are evaluated. For trimester schools that have retained the traditional semester credit by lengthening their class periods, semester and trimester credits are treated as equivalent. For trimester schools which have maintained the same length class periods as when they were on the semester systems, credits awarded are such that one trimester is equivalent to two-thirds of a semester credit.

Credits and grades are summarized overall in six areas on the WPC Guidance Report. The six areas are:

- English—English, speech, journalism, etc., plus work on student publications such as yearbook, newspaper, etc.
- Mathematics—general mathematics, algebra, geometry, trigonometry, advanced math, etc.
- Sciences—biology, chemistry, physics, botany, general science, etc.
- Social studies—history, civics, geography, psychology, religion, ethnic studies, etc.
- Foreign language—French, German, Spanish, Latin, Russian, etc.
- Electives—the five general areas of business, home economics, industrial arts, music, and art as well as miscellaneous courses such as physical education, student assistant activities (e.g., teacher aide, library aide, etc.), independent or directed study, work study, driver training, community service, and similar types of activities for which high schools award academic credit.

The overall grade and credit listing includes all courses, including electives, given *A, B, C, D, E,* or *S* grades. Failures are included even though the course is later made up and credit earned.

Honors courses or advanced work are rated the same as regular coursework. Their small numbers among the high schools preclude separate classification. GPA's which are blank for certain course areas on the WPC Guidance Report signify that the student has taken no coursework in the area. Summer school work prior to the ninth grade or after the eleventh grade, for those tested in high school, generally is not included. Exceptions occur for algebra courses taken prior to ninth grade which are recorded as *S* grades and given the credit value awarded by the high school and for foreign language courses taken in the seventh and eighth grade which are also recorded as *S* grades but given one-half the credit specified by the high school. This latter policy is based on the April, 1969 recommendation of the Washington Council on High School-College Relations.

Similarity of Interests to Areas of Study

Beginning in 1976, the WPC Test began utilizing a student's performance on the VII to provide information on how their pattern of interests related to the patterns of interest of college graduates who had taken the VII in high school (Lunneborg, 1977b). The two closest areas of similarity to the student's pattern are listed.

Presently 15 college major areas are included in this section: accounting, art, biological sciences, communications, economics, engineering, fisheries/forestry, foreign languages, health, history, home economics, nursing, political science, social services, and urban/environmental planning. Although there are other college major areas that many students will want to consider, these 15 are representative and allow some basic comparisons. Students can see what programs of study people with VII scores much like theirs completed.

SAT Estimates

Two studies regarding the relationship between the WPC Test and The College Board's Scholastic Aptitude Test (SAT) have been carried out (Greenum, 1971, 1976). Results have indicated that the two test batteries share a large amount of common variance in both verbal and quantitative abilities. Considering the high correlations, a considerable amount of redundant testing is avoided by reporting estimated SAT scores for students who completed the WPC Test. Thus, all colleges in Washington plus several in Idaho and Oregon which formerly accepted only SAT scores now accept WPC Test SAT estimates in place of actual SAT scores. These estimates are reported (i.e., V = Verbal, M = Mathematical) on the WPC Guidance Report.

WPC College Expectancies

Perhaps the most unique component of the WPC Test is the college expectancies section. This section provides information about how students might perform on college work. Forty-eight college course areas and an all-college course listing are included. These specific course areas are grouped by each of the VII scales as shown below.

Students' expected scores are estimates of their college performance in each area. These expectancies are based on students' high school GPAs and WPC Test scores. The procedure for obtaining the expectancies was developed by studying the relationship between the high school grades and WPC Test scores and subsequent college grades of students who went on to complete coursework in college (Horst, 1954). The present WPC expectancies are based on a study of over 33,000 WPC Test-takers who later took coursework at 18 different Washington postsecondary institutions (Silva, 1977).

Background and Career Information

Prior to taking the WPC Test, students provide information on their background and career plans. Much of this information is listed on the WPC Guidance Report and the remaining is made available to colleges who request information on students interested in attending their institution through the WPC College Information System. All of the information is found in the *WPC Registration Booklet*.

The areas of information collected, aside from basic identifying data such as name, school, address, etc., are:

- College choices—students' first, second, and third college choices are requested. These inform colleges of students' plans and serve as a release of the student's Test data to these institutions should they request such information from WPC. This release is completed when postsecondary institutions take part in the WPC College Information System.
- Background information—U.S. citizenship, residency and veteran status, handicap considerations and racial information.
- Requests for help—students may indicate anticipated needs for help in mathematics, written English, reading, study skills, and in deciding educational/vocational goals.
- College registration plans—includes date of planned registration, residence plans, educational goal, previous college credit, planned major, and intended occupation.
- High school extracurricular activities—participation indicators for 16 types of extracurricular activities in which students might have been involved.
- College extracurricular interests—participation indicators for plans to participate in any of 16 types of extracurricular activities.
- High school programs—indications of enrollment in accelerated, advanced placement, or honors programs in English, mathematics, natural science, social sciences, and foreign language.
- Out of class activities—employment, student leadership, science, art, speech/drama, music, writing, community service, and athletic experiences.
- Financial aid—plans for requesting financial aid, need for part-time employment, and level of family income.
- College program interests—students can indicate an interest in 11 special programs such as honors programs, ad-

VII Scale	College course area
Service	Recreation, social work
Sales	Political science
Organization	Accounting, business administration, data processing, economics, secretarial studies.
Technical	Auto mechanics, computer science, electronics, engineering, welding.
Outdoor	Agriculture, animal science, botany, environmental studies, forestry, geology, horticulture.
Science	Astronomy, atmospheric science, bacteriology/microbiology, biology, chemistry, health education, health technology, math, nursing, physics, zoology.
General Cultural	Anthropology, communications, English, French, geography, German, history, journalism, philosophy, psychology, Scandinavian languages, sociology, Spanish, speech.
Arts and Entertainment	Interior design, music, photography.

vanced placement, independent study, etc.

- College choice factors—plans to attend a certain type of institution and a rating of seven factors (e.g., college type, cost, size, etc.) as to their importance in selecting a postsecondary institution.

WPC TESTING PROCEDURES

The WPC Test is available to high school students during the spring and autumn of each year and to entering college students throughout the year. Testing periods are announced by WPC and test centers around the state schedule sessions within these perods. Each high school is assigned a test center (usually a Washington postsecondary institution) and both the test center and high school jointly coordinate registration and testing.

After test sessions are scheduled, WPC Test Information Posters, *Registration Booklets*, and Answer Folders are sent to each high school. The poster allows counselors to list the time and place of testing. Students register for the Test by responding to the background and career information items in the *WPC Test Registration Booklet*. These are recorded on the first three pages of their WPC Test Answer Folders.

On the day of testing, students bring their partially completed WPC Test Answer Folder and test fee to the session. Page four of this folder is the answer sheet for the eight WPC cognitive subtests. Testing is conducted under standardized procedures outlined in the *WPC Test Administration Manual*. Students may not complete the WPC Test more than once in a five-month period.

When the session is completed, the test supervisor sends all answer folders to WPC for processing. These documents are read by an optical scanning machine. Then Early Return/Transcript Request Lists are prepared for each high school. These lists contain all eight WPC subtest scores, the two WPC composite scores, and the estimated SAT scores for each Test-taker. In addition, they indicate to high schools those students who have taken the Test so that their transcripts may be sent to WPC. These Early Return/Transcript Requests Lists are sent out to high schools usually within two to three weeks after testing has been completed and answer folders are received by the WPC central office.

Transcripts, complete through the junior year, are then forwarded to WPC and processed as part of the WPC Test. These complete the information needed to produce WPC Guidance Reports. The Guidance Reports, copies of the *WPC Student Guide*, and copies of this *Counselor's Guide* are then sent to the high schools for Test interpretation and use in career exploration and planning activities.

The fee for the Washington Pre-College Test is $9.00. This was established jointly by the Washington Pre-College Testing Committee and the Washington Council on High School-College Relations during their 1977 spring and autumn meetings, respectively. The test fee can be waived by the high school principal or counselor in case of financial hardship. This is done by providing the student with a letter to this effect to bring to the testing session.

The WPC Test is also available in braille, tape, and largeprint editions. These can be obtained directly from the WPC central office along with suggestions for administering the WPC Test to handicapped students.

Part 3: Using The WPC Test For Career Planning

This part of the *Counselor's Guide* should help you use the WPC Test and related materials in assisting your students with career exploration and planning activities. Specifically, it should help you in interpreting WPC Test results to students and in facilitating their use of the *Student Guide*.

The WPC Test now serves a broader function than has been true of tests in the past. Thus, WPC Test interpretation requires more than a brief explanation of what the scores mean.

This part of the *Counselor's Guide* presents a step-by-step, comprehensive approach to teach students how to use their WPC Test scores for career exploration and planning, how to gather further career information and relate it to their scores, how to analyze and process a variety of self and world-of-education-and-work information, and how to make tentative career decisions and plans. This is organized within the framework of the *WPC Student Guide*.

The specific objectives of such an orientation to WPC Test interpretation include:

- Students will learn how to interpret their WPC Test scores from their WPC Guidance Reports.
- Students will use their WPC Test scores in conjunction with the career development information in the *WPC Student Guide* to explore and focus on some tentative career directions.
- Students will learn different ways to explore possible career directions.
- Students will learn where and how to obtain further information to help them better make career decisions and plans.

The above objectives are interwoven in the *Student Guide*, one section of which is the intepretation of the Guidance Report. The *Student Guide*, then, is a workbook for students to use in career exploration and planning. This approach is based on the need to directly involve students in the career exploration and planning process (Noeth, Roth, & Prediger, 1975) plus the fact that career development is best promoted through both knowledge and involvement activities (Noeth & Prediger, 1978).

Throughout this *Guide*, information similar to that presented in the *Student Guide* is provided. This is to avoid as much as possible your having to go back and forth from one booklet to the other. Additional suggestions and details for interpretation are also included. You should feel free to embellish those points you feel are more important and to add further information where you feel it is appropriate.

Prior to any interpretation sessions, you should be sure that your students have four copies of their Guidance Report and a copy of the *Student Guide*. You should carefully read through your *Counselor's Guide*, the *Student Guide*, and the Guidance Report as you prepare for the sessions. You may wish to make use of an overhead projector and use the transparency masters provided to help you with interpretation.

Student Guide—Part 1: Introduction

The purpose of this section is to show your students how the WPC Test can be of major help to them in career exploration and planning. You may initially want to cover the following concepts.

- Information is essential in making decisions about which career directions to follow.
- Needed information can include finding out about the programs of study, costs, campus life, etc., at different colleges and the training, salaries, work duties, etc., involved in different occupations.
- Individuals also need to examine which jobs are in line with their interests, abilities, and career values.
- The WPC Test can help students examine their interests and skills and then relate them to occupations, programs of study at postsecondary institutions, and college course areas.

Going over the above points (covered on page 1 of the *Student Guide)* will provide a perspective for your WPC Test interpretation. Offering additional examples of information needs, or asking students to list these, and then highlighting how the WPC Test can help meet these needs can also enhance your introduction to the session.

Student Guide—Part 2: Your WPC Guidance Report

Five copies of each student's WPC Guidance Report are sent to the high school. Four are for the student and one is for counselor files. An example of a Guidance Report, for a fictitious Wilma P. Clark, is reproduced on page 2 of the *Student Guide* and below.

A recommended procedure for interpreting the Guidance Report follows. At the top left of the report should be printed the student's name, sex, birthdate, social security number, high school, WPC identification number, and date of testing. Students gridded these when registering for the Test. Major errors can be corrected by contacting the WPC central office in writing (the address is on the back cover of this *Guide*).

WPC Test Scores. Students' WPC Test scores are located at the mid-left side of the Guidance Report. There are two composite scores, verbal and quantitative, and the eight subtest scores—English usage, spelling, reading comprehension, vocabulary, applied mathematics, mathematics achievement, spatial ability, and mechanical reasoning. A brief definition of each composite and subtest is given on page 3 of the *Student Guide* and on page 2 of this *Guide*.

WPC Test scores are standard scores which range from approximately 20-80 and have a mean of about 50 and a standard deviation of about 10. Almost 70% (i.e., 68%) of the students will fall within one

CLARK WILMA P
FEMALE
BIRTHDATE 03/08/62
SS# 458-66-7062

WPC COLLEGE TESTING
WPC ID# 94-600-59990
DATE TESTED 03/01/79

REQUESTS FOR HELP		COLLEGE TYPE PREFERENCE	STATE COLL/REGIONAL UNIV#
MATH	YES	EDUCATIONAL GOAL	4 YEAR COLLEGE DEGREE
READING	YES	PLANNED MAJOR	COMMUNICATIONS, GENERAL
WRITING	NO	HOW CERTAIN	FAIRLY SURE
STUDY SKILLS	NO	PLANNED OCCUPATION	ADVERTISING
ED/VOC PLANNING	YES	HOW CERTAIN	FAIRLY SURE

WASHINGTON
Pre-College Test
Guidance Report
07/18/79

WPC TEST SCORES

TEST	SCORE
VERBAL COMPOSITE	58
QUANTITATIVE COMPOSITE	45
ENGLISH USAGE	63
SPELLING	64
READING COMPREHENSION	52
VOCABULARY	52
APPLIED MATHEMATICS	50
MATHEMATICS ACHIEVEMENT	42
SPATIAL ABILITY	38
MECHANICAL REASONING	52

VOCATIONAL INTEREST INVENTORY

A	SERVICE	47
B	SALES	42
C	ORGANIZATION	51
D	TECHNICAL	43
E	OUTDOOR	42
F	SCIENCE	53
G	GENERAL CULTURAL	55
H	ARTS AND ENTERTAINMENT	65

HIGH SCHOOL RECORD (GRADES 9-11)

GPA	SUBJECT	SEMESTER CREDIT
3.15	OVERALL	34.00
3.33	ENGLISH	9.00
2.50	MATHEMATICS	4.00
	GENERAL	
	ALGEBRA	2.00
	GEOMETRY	2.00
	ADVANCED	
3.00	SCIENCES	2.00
	BIOLOGY	2.00
	CHEMISTRY	
	PHYSICS	
	OTHER	
3.50	SOCIAL STUDIES	4.00
	FOREIGN LANGUAGE	
	FRENCH	
	GERMAN	
	SPANISH	
	OTHER	
3.13	ELECTIVES	15.00

SIMILARITY OF YOUR INTERESTS TO AREAS OF STUDY

YOUR PATTERN OF INTERST SCORES IS MOST SIMILAR TO THOSE OF COLLEGE GRADUATES WHO MAJORED IN THE FOLLOWING AREAS

CLOSEST SIMILARITY
ART
SECOND CLOSEST SIMILARITY
FOREIGN LANGUAGES

V 47 M 43

WPC 0475 2/79

SEE REVERSE SIDE FOR FURTHER EXPLANATION

SUBJECT AREAS		EXPECTED SCORE	GPA	GR ABOVE	COLLEGE EXPECTANCIES 50% CHANCE GRADES WILL AVERAGE WITHIN AREA MARKED (D C B A)
ALL COLLEGE		53	96	67	
RECREATION	A	52	93	52	
SOCIAL WORK	A	54	96	71	
POLITICAL SCIENCE	B	53	86	48	
ACCOUNTING	B	50	72	32	
BUSINESS ADMINISTRATION	C	53	85	43	
*DATA PROCESSING	C	49	91	48	
ECONOMICS	C	50	77	34	
*SECRETARIAL STUDIES	C	52	86	48	
*AUTO MECHANICS	D	55	96	53	
COMPUTER SCIENCE	D	48	75	36	
*ELECTRONICS	D	53	97	59	
ENGINEERING	D	47	82	38	
*WELDING	D	53	89	52	
AGRICULTURE	D	53	93	57	
ANIMAL SCIENCE	D	44	48	8	
BOTANY	D	51	80	39	
ENVIRONMENTAL STUDIES	E	50	66	22	
FORESTRY	E	51	75	36	
GEOLOGY	E	50	80	39	
HORTICULTURE	E	46	86	50	
ASTRONOMY	F	50	68	29	
ATMOSPHERIC SCIENCE	F	45	63	16	
BACTERIOLOGY/MICROBIOLOGY	F	52	79	40	
BIOLOGY	F	51	78	34	
CHEMISTRY	F	49	71	25	
HEALTH EDUCATION	F	52	91	52	
*HEALTH TECHNOLOGY	F	57	97	65	
MATH	F	49	76	36	
NURSING	F	53	95	58	
PHYSICS	F	49	74	30	
ZOOLOGY	F	48	64	25	
ANTHROPOLOGY	G	52	86	48	
COMMUNICATIONS	G	53	91	52	
ENGLISH	G	52	92	55	
FRENCH	G	51	89	55	
GEOGRAPHY	G	51	80	36	
GERMAN	G	50	89	52	
HISTORY	G	52	83	58	
JOURNALISM	G	53	93	57	
PHILOSOPHY	G	50	81	39	
PSYCHOLOGY	G	51	89	52	
SCANDINAVIAN LANGUAGES	G	51	92	55	
SOCIOLOGY	G	53	90	52	
SPANISH	G	52	90	56	
SPEECH	H	53	97	68	
INTERIOR DESIGN	H	50	90	61	
MUSIC	H	51	96	67	
*PHOTOGRAPHY	H	57	93	70	

standard deviation above and below the mean (i.e., 40-60).

To better understand their WPC Test scores students should be encouraged to convert them to percentiles. They can do this on page 3 of their *Student Guide* by plotting their scores on Chart 1, *All High School Students Who Took the WPC Test in 1978*. This chart is reprinted below. Converting standard scores to percentiles based on the performance of the almost 30,000 students who took the WPC Test in 1978, allows students to compare their results with all other WPC Test-takers.

Students are advised to circle their WPC Test composite and subtest scores, to connect the circles, and thus to convert Chart 1 into a profile of their high and low areas. Wilma Clark's verbal and quantitative composite scores are given as examples of what she would circle. If students' *exact* Test scores do not appear on the chart (some will not due to the selection of the different percentile levels), they should circle the scores closest to their own. Some blank spaces appear on the chart because no standard scores were equivalent to particular percentiles. Scores that differ by five or more standard score units (one-half of a standard deviation) should be considered good indications of differing levels of ability in the areas compared.

After students have drawn their score profiles, they can find the equivalent percentiles for their scores in the left column of the chart. They can see that Wilma Clark's standard score of 58 on the verbal composite has a percentile equivalent of 80. This means that she scored higher than 80% of WPC Test-takers on the verbal composite. You might remind students that if their percentile scores seem lower than expected, it is because they are being compared only to WPC Test-takers, those students who usually plan on further education, and not to all high school students. Roughly one-half of all Washington high school students take the WPC Test.

High School Record (Grades 9-11). Next to the WPC Test Scores section on the Guidance Report is a summary of the student's high school record for grades 9-11. These data are gathered from official transcripts for all WPC Test-takers. The high schools forward them in response to their WPC Early Return/Transcript Request Lists. When transcripts are received, they are coded onto machine readable forms, entered into the WPC processing system, and then combined with students' other Test data.

GPAs and semester credits are listed for seven areas in this section. Currently the elective area covers all miscellaneous graded activities such as physical education, teacher aide, work study, driver training, community service, etc. These are covered on page 3 of this *Guide*.

CHART 1. ALL HIGH SCHOOL STUDENTS WHO TOOK THE WPC TEST IN 1978

Percentile Equivalent	WPC TEST SCORES										HIGH SCHOOL RECORD—GPAs							Percentile Equivalent
	Verbal Composite	Quantitative Composite	English Usage	Spelling	Reading Comprehension	Vocabulary	Applied Mathematics	Mathematics Achievement	Spatial Ability	Mechanical Reasoning	Overall	English	Mathematics	Sciences	Social Studies	Foreign Language	Electives	
99	71	70	72	69	67	71	67	73	67	68	4.00	4.00	4.00	4.00	4.00	4.00	4.00	99
95	66	67	65	66	64	66	66	67	65	66	3.89	3.98	3.97	3.99	3.99	3.99	3.99	95
90	62	64	61	64	61	63	64	63	64	62	3.77	3.88	3.80	3.97	3.97	3.97	3.98	90
85	60	62	58	60	60	59	63	61	61	61	3.68	3.79	3.62	3.78	3.83	3.96	3.91	85
80	58	60	57	59	59	57	60	59	60	58	3.59	3.67	3.49	3.65	3.75	3.94	3.83	80
75	56	58	54	58	57	55	58	57	58	56	3.50	3.57	3.33	3.50	3.60	3.76	3.75	75
70	54	57	52	55	56	53	57	56	57		3.42	3.50	3.17	3.36	3.50	3.66	3.68	70
65	53	55	51	54	55	52	55	54		55	3.33	3.36	2.99	3.24	3.40	3.49	3.60	65
60	51	53	49	53	52	49	54	53	55	52	3.26	3.29	2.97	3.00	3.25	3.48	3.51	60
55	50	52	47	51	51		53	52	52	51	3.18	3.17	2.78	2.98	3.20	3.25	3.48	55
50	48	50	46	49	50	48	51	50	50	50	3.10	3.08	2.67	2.96	3.00	3.01	3.38	50
45	47	49	45	48	49	45	49	48		49	3.03	3.00	2.50	2.75	2.98	3.00	3.30	45
40	45	47	43	47	47	44	47	47	48		2.95	2.86	2.49	2.66	2.83	2.99	3.20	40
35	44	45	42	46	46	43	46	45	46	46	2.87	2.78	2.33	2.49	2.75	2.74	3.10	35
30	42	44	41	44	43	41	44	44	43	45	2.78	2.67	2.20	2.44	2.60	2.50	3.00	30
25	41	42	40	42	41		42	42	41	41	2.69	2.50	2.00	2.24	2.49	2.48	2.93	25
20	39	40	39	40	40	39	39	40	39	40	2.59	2.40	1.98	1.99	2.33	2.18	2.78	20
15	37	38	37	38	38	37	37	38	38	38	2.47	2.25	1.80	1.97	2.17	1.97	2.63	15
10	35	35	36	36	33	35	35	35	34	35	2.32	2.00	1.66	1.75	1.98	1.83	2.44	10
5	32	32	32	32	30	32	31	32		33	2.11	1.80	1.34	1.48	1.66	1.44	2.14	5
1	28	28	31	31	23	31	28	28	33	32	1.70	1.28	.93	.95	1.16	.81	1.66	1

Note: A blank space appears where there is no corresponding WPC standard score for a given percentile

GPAs are reported on a scale of 0.0 (E) to 4.0 (A). Credits are reported in semester credits. If students' credits have been awarded in some other unit, such as trimesters or quarters, these will have been converted to semesters. If you notice errors in either grade or credit summaries, contact the WPC central office in writing to have them corrected.

To avoid errors in transcript summarization keep WPC informed of changes in your school's credit system, course titles, new course-curricular classifications, etc. Changes of this type should be reported to WPC early in the spring.

One way to help students interpret their grades is to have them look at their high and low grade areas. They should consider GPAs that differ from area to area by .35 or more (about one-half of a standard deviation) to be areas in which they have shown major differences in performance. Remember, though, that many traditional areas like math and science often grade lower than other areas (e.g., electives).

Another way is to have students profile their grades in the same manner and on the same chart as their WPC Test scores—Chart 1, *All High School Students Who Took the WPC Test in 1978*. The resulting profile will show them how they performed in their high school studies as compared to all other WPC Test-takers. As with the WPC Test scores, they can be directed to find and interpret the percentile equivalent for their grades.

It can also be useful to have students compare their WPC Test scores with high school grades. They can do this by looking at their profiles on Chart 1 to see how their scores and grades compared to those of other WPC Test-takers. Consistent patterns of test scores and grades are common and reassuring in that they tend to validate each other (e.g., a high WPC verbal composite and high English grades). Not all patterns will be consistent and when inconsistencies are found (e.g., a low WPC quantitative composite and high mathematics grades), potential reasons for these could be explored with students. Such reasons could range over problems with regards to testing or the level of math courses taken to classroom problems in a particular course. In addition, further indicators of math performance could be explored. For example, other standardized math tests or out-of-class math activities and accomplishments might provide additional insight in this area.

Finally, the high school record on the Guidance Report can be used to check high school requirements to see if students are missing needed courses. This grade and credit summary can also be checked along with present course plans against admissions requirements at any of the postsecondary institutions the student is planning to attend. Deficits can be spotted and actions taken to fulfill such requirements so as not to limit admission and placement opportunities.

Vocational Interest Inventory

The Vocational Interest Inventory (VII) was developed to help students make better career decisions and plans. The eight interest scales that comprise the Inventory are described briefly on page 4 of the *Student Guide* and in a bit more detail on page 3 of this *Guide*. Each scale represents an area of the world of work, categorized by the kinds of activities done by workers in the area.

VII scores are standard scores which range from approximately 20-80 and have a mean of about 50 and a standard deviation of about 10. Thus, as with WPC Test scores, almost 70% of the students will fall within one standard deviation of the mean (i.e., 40-60).

The *Student Guide* Reference Section lists specific occupations and programs of study at Washington postsecondary institutions for each of the eight VII areas. The occupations are categorized by the amounts of training typical of people in the particular jobs.

Your VII Profile. As students proceed to their VII Profile, you might remind them that there are no right or wrong answers on the VII. Their reponses are always right as they reflect their own particular likes and dislikes for different career-related activities.

Students are told in their *Student Guide* that one way to look at their interests is to profile them as they did for their WPC Test scores and high school GPAs. Chart 2, *Your VII Profile*, is provided for this purpose and reprinted below.

CHART 2. YOUR VII PROFILE

Percentile Equivalent	VII Scales								Percentile Equivalent
	Service	Sales (Business Contact)	Organization	Technical	Outdoor	Science	General Cultural	Arts & Entertainment	
99	72	73	74	72	70	72	76	72	99
95	66	66	67	66	66	67	67	66	95
90	62	63	63	62	63	63	62	63	90
85	60	60	60	60	60	60	60	61	85
80	58	58	58	58	58	59	57	58	80
75	56	56	56	56	57	57	56	56	75
70	55	55	54	54	55	55	54	55	70
65	53	53	53	53	54	54	52	53	65
60	51	51	51	51	52	52	51	52	60
55	50	50	50	50	51	50	50	51	55
50	49	49	49	49	49	49	49	49	50
45	47	48	48	47	48	48	47	48	45
40	46	47	46	46	47	46	46	46	40
35	45	45	44	45	45	45	45	45	35
30	44	44	43	43	44	44	43	44	30
25	42	42	42	42	42	43	42	42	25
20	40	40	41	40	41	41	41	41	20
15	38	39	39	38	38	39	39	38	15
10	36	36	37	36	36	37	37	36	10
5	33	33	35	33	33	33	34	33	5
1	26	27	29	27	27	29	30	27	1

Students can draw their own profile by circling and connecting their standard scores. Then, they can find from the margins the percentile equivalents for their scores. As before, they can translate Wilma Clark's standard score of 47 in the Service area to a percentile equivalent of 45. This means that she scored higher than 45% of the WPC Test-takers on the VII Service scale. This VII profile chart, like Chart 1, is based on the scores of all people who took the WPC Test in 1978.

A second way to interpret WPC Test scores is also shown in the *Student Guide*. This is a "self-comparison" based on the ipsative nature of the VII. (Ipsative refers to intra-individual rather than normative comparison.) Students can look at the VII scores on their Guidance Report and identify their high and low areas. In doing this, students are comparing areas in an ipsative or "compared-within-the-self-sense." "For me, which areas are highest, which lowest?" In these comparisons, a student's absolute degree of interest is not a factor. Students are simply being compared within themselves—an approach of primary importance for career exploration and planning.

Using Your VII for Career Planning. The *Student Guide* tells students to find their three highest interest areas on the Guidance Report—their self-comparison—and to list them on page 5 of the *Student Guide*. They can then go to the Reference Section and select from these three areas occupations and programs of study in which they are most interested. Students should be given some time to do this as there are a number of occupations and programs to consider. This approach can be helpful as it should begin to involve students in their own test interpretation and in their own career exploration activities. This orientation continues throughout the *Student Guide*.

Similarity of Your Interests to Areas of Study. This section of the Guidance Report allows students to see the similarity of their VII scores to those of college graduates who took the WPC Test in high school. Students can learn the types of programs completed by individuals who had interest scores much like theirs when these people were in high school.

The Guidance Report indicates the two among 15 areas to which the student's interest pattern is closest. Listed on the back of the Guidance Report are the 15 college graduate major areas: Accounting, Art, Biological Sciences, Communications, Economics, Engineering, Fisheries/Forestry, Foreign Languages, Health, History, Home Economics, Nursing, Political Science, Social Sciences, and Urban/Environmental Planning. You might remind students that they are being compared only to graduates in these 15 areas. There are other areas of study not included in this section. Also, although the two closest areas are listed, a student still might be fairly distant from all 15 in terms of relative interest.

In the *Student Guide* students are asked to record from their Guidance Report their two closest areas of similiarity. They are then told to find specific programs of study and occupations in the Reference Section for these two areas that are interesting to them and record them in the space provided.

Exploring Nontraditional Career Options. While the VII is one of the leaders among interest measures in reducing sex-role stereotyping, students often find that their scores may lead them to consider

only areas in which their sex has traditionally scored high. For men this has been the Sales, Technical, and Outdoor areas and for women, the Service, General Cultural, and Arts and Entertainment areas.

The *Student Guide* attempts to neutralize some of these typical results. It suggests that men's and women's jobs are a thing of the past and that opportunities for either sex in what were once thought of as the other sex's job are very good.

Students are thus encouraged to look at their VII profile and see if they scored at or above the 50th percentile in a not-traditional-for-their-sex area. These would be the Service, General Cultural, or Arts and Entertainment area for men and the Sales, Technical, or Outdoor area for women. If one or more of these non-traditional areas is at or above the 50th percentile, students are advised to list the highest one in this section of the *Student Guide*. They can then turn to the Reference Section, examine jobs and programs of study which interest them under this category, and record them in the space provided.

V-M (SAT Estimates)

This Guidance Report section contains estimates of performance on the Verbal (V) and Mathematical (M) portions of Scholastic Aptitude Test (SAT). These estimations are based on students' WPC Test scores and research carried out by WPC since 1971. These estimates are used by several Washington postsecondary institutions in place of actual SAT scores.

NOTE: SAT estimates are not treated in the *Student Guide* as they do not add to its career development approach. However, the estimates are mentioned on the back of the Guidance Report.

Requests for Help and Career Plans. In the upper right portion of the Guidance Report are some responses made by students when they completed the *Registration Booklet* for the WPC Test. Requests for Help are listed so that counselors can discuss these areas with students and perhaps suggest assistance available to them while they are still in high school. In addition, college admissions officers, advisors, placement counselors, etc., might use this information in advising students about courses, remedial programs, career counseling opportunities, etc.

The information on college type preference, educational goal, planned major, and planned occupation allows students to look at some of their career-related preferences when they took the WPC Test. If students have changed their plans, you might explore with them why they have done so or what new information caused them to make these changes. New information also can cause them to further validate their initial choices. You might ask whether their certainty level has changed.

This presents a good opportunity for you to show students how continual information is needed to make good career decisions and plans. Students are asked in the *Student Guide* to list their planned major and occupation from their Guidance Report.

College Expectancies. This section does much of the work counselors are often required to do in terms of the collection, analysis, and organization of probabilistic career planning information for students. It presents information to your students based on a study of individuals very similar to them. Your students can see how those who had WPC Test scores and high school grades similar to theirs performed in many different course areas when they went on to college.

One all-college and 48 specific subject areas are listed. The all-college area includes all college courses taken by students during their first two years of college. You should show your students that courses are grouped here by the eight VII areas, labelled A-H, to help them relate their interests to their estimates of performance.

Expected Score. The expected score is an estimate of a student's expected performance in each of the course areas. Students are compared to the validation study group of almost 33,000 students who took the WPC Test and then went on to attend one of 18 two-or four-year postsecondary institutions in Washington.

As students' grades vary from subject to subject (e.g., 2.5 may be the average grade in one subject but not in another), they have been standardized so that the average grade in each course area is represented as a standard course of 50. Thus, 50 may equal a 2.5 in the one subject area and a 2.8 in another. If a student's expected score is above 50 for a particular area, chances are that the student will earn above average grades in that area. Wilma Clark's all-college expected score is 53, for example. This means that she has a good chance of doing slightly better than average work in all of her college courses (in the college expectancies chart the "I" is to the right of the "X"), almost to 3.0.

C or Above and B or Above. Students' scores in these two columns indicate their chances of obtaining C or higher or B or higher grades in each particular course area. Wilma Clark has a 93 in her C or Above column and a 52 in her B or Above column for the recreation area. This means that 93% of the students with WPC Test scores and high school grades similar to Wilma's received grades of C or better and 52% received grades of B or better in their postsecondary recreation courses.

College Grade Expectancy Bands. The widths of these expectancy bands represent the range of college grades achieved by the middle 50% of the students with high school grades and WPC Test scores similar to those reported on the individual's Guidance Report. The "I" (for individual) is the center of the band (i.e.,----I----) and indicates the student's most likely grade average in a particular area based on his or her WPC Test scores and grades. The "X" indicates the average grade of Washington students who actually completed college courses in the particular area. This is equivalent to an expected standard score of 50. A "+" appears when the "I" and "X" coincide.

Wilma Clark can again be used to help students interpret their expectancy bands. Her recreation course area band extends from about 2.5 to 3.5 indicating that of all college students with WPC Test scores and high school grades similar to Wilma's, 50% had recreation course grades within this band. About 25% earned lower grade averages than this range and 25% earned grade averages above this band. Another way for Wilma to look at the grade expectancy band is to say that 75% of the college students with WPC Test scores and high school grades similar to her's earned grades above the low end of the expectancy band (i.e, above about a 2.5).

One common concern is that the expected scores for many students tend to be lower than their WPC Test scores. For example, a student with WPC Test scores in the 50's may tend to have expected scores in the 40's. This is caused primarily by the different group of students upon which these scores are based. Thus, while the WPC Test scores are based entirely upon high school students, the expected scores are based upon students who actually entered postsecondary institutions and completed a certain amount of coursework. This latter group can ordinarily be expected to have achieved higher than average WPC Test scores.

Student Guide—Part 3: Career Values

This section of the *Student Guide* introduces students to the concept of career values and then provides a brief exercise to examine their career values. Clarifying these values represents another way of exploring career directions. Students are asked to consider their career values, the things about a job (e.g., pay, coworkers, security, location of work, etc.) that fit into their ideas about what makes a job enjoyable and compatible with their lifestyle.

They can examine their career values by

circling the three most important of those values listed and then ranking their first, second, and third most important ones.The career values listed on page 8 of the *Student Guide* are:

- Geographic location of the job
- Being well paid for your work
- Working indoors mostly
- Working outdoors mostly
- Having a steady, secure job
- Having one or two work tasks
- The size of the company, agency, or work setting
- Working with people you like
- Being the boss
- Doing work that you enjoy
- Being appreciated and recognized for your work
- Working flexible hours
- Having a variety of work tasks
- Having a chance for promotion

Counselors may wish to provide some example of those career values or perhaps add some others for students to consider. Students might be encouraged to suggest additional career values.

Student Guide—Part 4: Considering Career Directions

This section is a summary of the work students have done in the first three parts of the *Student Guide*. They turn to pages 5, 6, and 7 and review the programs of study and jobs they listed which were of interest to them. They then select those jobs in which they are most interested and check off the ones that appear to be most in line with their career value ratings (page 8). If none fit, students are asked to reconsider their values or to list other jobs of interest to them. For those checked, they list the related programs of study along-side.

Students now have done some exploration of occupations and related programs of study and prioritized a few through their career values for further exploration. They have provided themselves with some consistent information based on their interests, skills, and values.

You may wish to explore this notion of consistency with your students. For example, were the jobs and programs of study they listed on the different pages of their *Student Guide* similar? If so, they probably have some sense of career direction and now may need to examine some of these options more thoroughly. If they were not consistent, you might wish to discuss potential reasons for this with students. Perhaps they did not have a great deal of information in any one area. It could be that these students are in the early stages of career exploration and not yet ready to narrow their options.

Student Guide—Part 5: Information Resources About Occupations and Programs of Study

This section tells students about resources for career exploration and planning. Those listed are also printed below. You may wish to add further information to the descriptions listed and to suggest additional resources at your school or elsewhere that you feel would be valuable to your students. You may wish to have your students search out and list their own additional resources.

People

- Your high school counselor can help you make the best use of the WPC Test and other information for career decision-making and planning. Your counselor can also act as a resource person and help you identify workers, graduates, and others who may be involved in programs or jobs in which you are interested.
- Personnel at postsecondary institutions such as admissions officers, financial aid counselors, placement counselors, and others can tell you about the programs available at their institutions, requirements for admission, credit or advanced placement opportunities, various types of financial aid assistance, jobs taken by their graduates, etc.
- Librarians can help you find information about career planning, various college programs, different occupations, etc.
- Workers on jobs you are interested in can tell you about their occupations, how they prepared for them, the skills they need on the job, etc.
- Students from your high school who are enrolled in programs of study can tell you about courses they are taking, why they have chosen these particular areas, and their future career plans.

Materials—Occupations

- *Occupational Outlook Handbook* describes occupations, training needed, employment outlook, pay, and other information about jobs. Washington, D.C.: U.S. Government Printing Office. (Revised every two years.)
- Job information pamphlets, brochures, and books that cover many different kinds of jobs, employment trends, etc. These can usually be found in your school guidance office and school and local library.
- *Dictionary of Occupational Titles* includes descriptions of job duties and related information for almost every occupation in the United States. Washington, D.C.: U.S. Department of Labor, Fourth Edition, 1977.
- Washington Occupational Information System (WOIS) is a computerized method of exploring occupations and related programs of study in Washington. This information is also available on printed files and microfiche. WOIS is available at most Washington high schools and community colleges.

Materials—Postsecondary Institutions

- *Mapping Your Education* provides information about postsecondary institutions in Washington and Oregon and includes information on programs of study, costs, admissions procedures, etc. Newport, Oregon: Bell Publishing Company. (Revised annually.)
- *Barron's Profiles of American Colleges* includes information about costs, programs of study, admissions policies, etc., for postsecondary institutions nationally. Woodbury, New York: Barron's Educational Series, Inc.
- *Barron's Guide to Two-Year Colleges* provides information about academic and occupational programs, costs, etc. Woodbury, New York: Barron's Educational Series, Inc.

Student Guide—Part 6: Reference Section

This final part of the *Student Guide* is another unique feature of the WPC Test. It is divided into eight sections, each representing one of the VII areas (A-H). Each area includes occupations and postsecondary programs of study in Washington related to that particular interest area. Due to its length, it is not reprinted in this *Guide*.

Occupations are further broken down by their level of preparation: high school graduation plus varying degrees of on-the-job training; up to two years of college or technical school training; three or more years of college. Levels of preparation are selected as typical of most workers in the job. Almost every job listed has a compatible program of postsecondary study.

Programs of study are listed for all postsecondary institutions in Washington. This information is updated yearly for WPC by these institutions. Three categories are listed: four-year programs which generally lead to employment, although some lead to graduate school; community college transfer programs; and community college and vocational-technical institute programs leading directly to employment.

Counselors may wish to spend some time with students to be sure they understand the organizational pattern (i.e., VII area) of this section. In addition, counselors may wish to suggest some examples of how people with certain types of interests might

use this section. For example, counselors might use a student's planned occupation to find a related program of study at each of a number of Washington postsecondary institutions.

Reviewing WPC Test Objectives with Students

Earlier in this section were listed interpretation objectives for the WPC Test. These objectives have been adopted to facilitate a comprehensive approach to WPC Test result interpretation to help make the WPC Test part of students' career development processes. In reviewing such use with your students, you may wish to ask yourself whether you have been able to cover all four objectives:

- Have students learned how to interpret their WPC Test scores from their Guidance Report?
- Have students used their WPC Test scores in conjunction with other career development information in their *Student Guide* to explore and focus on some tentative career directions?
- Have students learned different ways to explore possible career directions?
- Have students learned where and how to obtain further information to help them better make career decisions and plans?

If you have been able to cover each of these with your students, you might wish to schedule one or more follow-up sessions. Even if all objectives have been met, you might wish to meet with students at later dates during the year to review some of the work they have done in conjunction with WPC Test results and the *Student Guide.* These follow-up sessions should help students who are in the process of making career decisions and plans.

Part 4: Technical Summary for WPC Test Components

This section of the *Guide* provides technical data for various components of the WPC Test. It elaborates the overview of WPC Test components provided in the first two parts of this publication.

WPC Ability/Achievement Measures

The present WPC Test (Form D) is composed of eight subtests and two composites. Each score is reported in standardized form so that the mean is established as about 50 and the standard deviation as about 10. Present standard scores are based on a large representative sample of high school juniors tested in 1973. This sample was tested with Form C of the battery. Form D was then equated to this earlier version. A linear equating procedure (Angoff, 1971) was employed with all but the mathematics achievement subtest (where an equipercentile procedure was used) due to the strong linear relationship between the two forms.

The scoring for the subtests contains a correction for guessing with the raw score for each measure determined by the formula, $RS = R - [W/(K-1)]$, where RS = raw score, R = number of right answers, W = number of wrong answers, and K = number of alternatives for each item on a scale.

Students are advised prior to taking the Test, in a section read from the *WPC Test Administration Manual,* that it is usually to their advantage to guess because the formula only corrects for pure random guessing. Frequently students can eliminate one

Table 1
Associated Standard Score Statistics for WPC Subtests

Subtest	Number of subtest items	Mean	Standard deviation	KR-20 reliability	Standard error of measurement
Verbal composite	150[a]	48.3	10.1	97[b]	2.26
Vocabulary	45	48.3	10.2	95	2.28
English usage	45	47.3	9.5	91	2.97
Spelling	35	49.0	9.9	93	2.62
Reading comprehension	25	49.3	10.5	87	3.79
Quantitative composite	50	49.3	10.6	94	2.60
Applied mathematics	20	49.9	10.6	88	3.67
Math achievement	30	48.9	10.6	92	3.00
Spatial ability	20	49.7	10.1	92	2.86
Mechanical reasoning	20	49.5	9.8	91	2.94

Note. *Means, standard deviations, and standard errors of measurement are based on a large sample (N = 27,750) of high school students who completed the WPC Test in 1976. The KR-20 reliabilities are based on a stratified sample (N = 3332) of high school juniors who completed the WPC Test in 1973.*

[a]*The number of items in the verbal and quantitative components are equal to the sum of the items contained in their component subtests.*

[b]*The reliability of the composites is equal to the reliability of the weighted sum of their combined subtest components.*

Table 2
Intercorrelations Among WPC Subtests and Composites

WPC subtests and composites	VC	VOC	EU	SP	RC	QC	AM	MA	SA	MR
Verbal composite (VC)	—	88	86	81	85	63	58	58	35	32
Vocabulary (VOC)	88	—	70	54	73	55	51	50	35	36
English usage (EU)	86	70	—	67	65	58	52	54	33	29
Spelling (SP)	81	54	67	—	52	46	42	42	19	10
Reading comprehension (RC)	85	73	65	52	—	59	54	54	35	34
Quantitative composite (QC)	63	55	58	46	59	—	93	93	53	56
Applied mathematics (AM)	58	51	52	42	54	93	—	76	48	52
Mathematics achievement (MA)	58	50	54	42	54	93	76	—	50	52
Spatial ability (SA)	35	35	33	19	35	53	48	50	—	55
Mechanical reasoning (MR)	32	36	29	10	34	56	52	52	55	—

Note. *Intercorrelations are based on a large sample (N = 27,750) of high school students who completed the WPC Test in 1976. Decimal points have been removed.*

or more of the item alternatives as an incorrect response and guessing is no longer totally random, being done among fewer possible responses.

Items on the subtests have been arranged in order of difficulty through previous analyses of the battery. Actual development of the items for the present form of the WPC Test was done by CTB/McGraw-Hill under contract to WPC. Scale content specifications, reflecting the content validity of the WPC Test, were initially drawn up by WPC staff in conjunction with educators at Washington secondary and postsecondary institutions. These specifications are based, where appropriate, on curricula at Washington high schools and colleges. Once items were developed they were tried out on samples of students similar to WPC Test-takers. Those items that then met content and statistical specifications in terms of difficulty and item-scale reliability were then selected for inclusion into the WPC battery. Time limits for the eight subtests have been established so that at least 90% of the WPC Test-takers have time to complete all items on each subtest.

Standard score means, standard deviations, Kuder-Richardson Formula 20 reliabilities, and standard errors of measurement for the WPC subtests and composites are described in Table 1. Table 2 contains intercorrelations among all WPC subtests and composites.

As shown, the median reliability of the WPC subtests is .92 and for the composites, .95. The average standard error of measurement is 3.02 for the WPC subtests and 2.43 for the composites.

The verbal and quantitative composite scores, as mentioned earlier, are each derived from weights assigned to their respective subtests (i.e., English usage, spelling, reading comprehension, and vocabulary for the verbal composite and applied mathematics and mathematics achievement for the quantitative composite) determined by a factor analyses of the WPC battery. The WPC Test verbal and quantitaive composite standard scores may be computed using the following formulas with WPC subtest standard scores:

- Verbal composite = .23 (English usage) + .33 (spelling) + .33 (vocabulary) + .29 (reading comprehension) − 8.94 (a constant).
- Quantitative composite = .52 (applied mathematics) + .55 (mathematics achievement) − 3.58 (a constant).

Given the differential nature of the WPC Test, it has often shown to correlate highly with other measures. Greenmun (1976), for example, has presented correlations of the WPC Test with both the Scholastic Aptitude Test and the ACT Assessment that approached the reliabilities of these latter instruments. Sedlacek (1976) examined the relationship between the WPC Test and the Wechsler Adult Intelligence Scale and found significant relationships between similar subtest areas. Much of the validity research, however, that supports the WPC Test is related to the differential prediction (i.e., college expectancy) component of the battery. This research is presented later in this section.

Trends of WPC Test scores, as of most tests, are of continual interest to users A recent study (Noeth, 1979) described WPC Test score trends from 1968 to 1977 and found that students decreased on all four English subtests, two of the three math subtests (three math subtests were included in the battery through 1978) and in the spatial ability area from 1968-1972. However, from 1973-1977 students continued to decline only on the vocabulary and English usage subtests. During this period they remained constant in the spelling and reading comprehension subtests, in two of the three math areas as well as in spatial ability and mechanical reasoning, and increased in the applied math area.

Vocational Interest Inventory

The Vocational Interest Inventory (VII) was developed primarily for use with high school students (Lunneborg, 1977b, 1979). The VII is based on Roe's occupational classification scheme (1956) which assigns every occupation to two dimensions, a field and a level. The field, or area, of an occupation involves the primary focus of the work activities of the job. The level is based upon the responsibility and training required for the job.

Roe's eight occupational fields or areas are Service, Sales (Business Contact), Organization, Technical, Outdoor, Science, General Cultural, and Arts and Entertainment. They are briefly described in Part 2 of the *Guide*. Four factors have consistently been found to underlie the VII. Three are bipolar—service vs. technical, sales vs. science, and organization vs. outdoor with the fourth being possibly bipolar with artistic vs. detailed work (Lunneborg & Lunneborg, 1975, 1978a). She lists six occupational levels ranging from work involving independent responsibility and requiring a considerable amount of education to work including jobs of an unskilled nature.

The VII includes two sections, each having 56 items. The first section consists of pairs of occupations drawn from different Roe areas, matched for occupational level. (Each occupational level is represented by nine items except the two highest for which there are ten items each.) The second section consists of items pairing two activities also based on different Roe areas. These activities are avocational as well as vocational. Each occupational area is matched twice with each of the other seven areas in forming each set of 56 items.

Students are asked to choose between the two occupations or activities making up an item. This forced-choice, ipsative nature of the VII is of particular value to students whose stated career-related interests and preferences are not well differentiated. By asking the student to make choices between occupations and activities, whatever preferences the student has will be reflected and a flat profile of interests will be unlikely.

Each of the eight VII scales, then, is based on 28 items, 14 each from the occupation and activities sections. Each item is given unit weight so that the raw scores on each scale can range from 0 to 28. Then raw scores are converted to standard scores with a mean of 50 and a standard deviation of 10. If a student omits 10 or more items the VII is considered invalid and no scores are printed. VII raw score means, standard deviations, and standard score weights are presented in Table 3. A renorming of the VII was completed in 1979 and the new normative table is shown in the *WPC Student Guide* and on page 8 of this *Guide*.

Table 3
1979 VII Raw Score Means, Standard Deviations, and Standard Score Weights

VII scale	Raw score $\bar{X}$ mean	Raw score SD	1979 Standard score weights *b*	*a*
Service	14 91	3 62	2 76	8 84
Sales (Business contact)	12 40	4 12	2 43	19 87
Organization	13 54	4 57	2 19	20 37
Technical	14 32	3 43	2 92	8 21
Outdoor	16 01	5 03	1 99	18 17
Science	14 47	5 36	1 87	22 97
General cultural	12 12	3 98	2 52	19 52
Arts and entertainment	14 16	4 45	2 25	18 22

Note. *This table is based on the scores of all high school students tested in 1978 with the WPC battery (N = 26,281).*

Reliability information shows that stability levels for the eight VII scales ranged from .75 (technical) to .88 (outdoor) with a test-retest interval of three weeks. Internal consistency coefficients, converted by the Spearman-Brown prophecy formula, ranged from .54 (general cultural) to .80 (science). VII occupations and activities sections scale intercorrelations ranged from .37 (arts and entertainment) to .63 (science). Further reliability information can be found elsewhere (Lunneborg, 1977b, 1979).

Validity information on the VII includes concurrent and predictive data. Predictive validity information is presented later in this part under the Similarity of Interest section. The construct validity of the VII is supported by its correlations with the Vocational Preference Inventory (Holland, 1970) and Strong-Campbell Interest Inventory (Campbell, 1974) on a fairly large sample of students (Lunneborg & Lunneborg, 1975). All correlations, with only one potentially legitimate exception, were consistent with those predicted between the VII scales and corresponding scales on each of the other two instruments. Lunneborg and Lunneborg also showed further construct validation information for the VII's use of Roe's occupational classification model. They grouped Strong-Campbell occupational scales by both Roe and Holland schemes and reported average correlations for each. Correlations were as high for occupational scales grouped by Roe as by Holland. Lunneborg (in press) also showed considerable relationship between similar scales of the VII and the UNIACT, the interest measure used with the ACT Assessment (Hanson, Prediger, & Schussel, 1977). See Lunneborg (1977a, 1979) for further VII validity data.

Finally, a major aspect of the VII has been its historical attempt to control for sex bias at the item level (Mitchell, Lunneborg, & Lunneborg, 1971). This was initiated well in advance of national concerns for sex fairness in interest measurement (Diamond, 1975). Presently, any items which correlate with sex at .15 or higher are rewritten or replaced. However, despite this practice, cumulative effects of small sex differences on items can produce significant correlations between total score and sex status (Lunneborg, in press). This type of effect is continually being checked with efforts to rewrite and modify items to the point of zero correlation with sex. In the *Student Guide* information is also provided to students on exploring nontraditional areas based on their VII results. A thorough treatment of this problem is found elsewhere (Lunneborg, in press).

High School Record

Part 2 of this *Guide* provides a complete overview of the high school record component of the WPC Test. There is little further information required to complete the coverage of this section as it is more of a straightforward process than technical concern. Ten year trends of Washington college-bound students' high school grades and credits are reported by Noeth (1979). Findings included that grades for all subject areas over the 10 year period consistently increased. For example, overall GPA went from a 2.71 in 1968 to 3.07 in 1977. Also, this study reported that the amount of credits taken in most areas rose over the period.

Similarity of Interests to Areas of Study

In 1976, the WPC Test began utilizing performance on the VII to provide information on how students' patterns of interests related to those of college graduates who had taken the VII in high school (Lunneborg, 1977b). The two closest areas of similarity are listed for each WPC Test-taker.

Fifteen college major areas are presently included in this section. These are based on a recent study which increased the number of original college major areas from 11 (Lunneborg & Lunneborg, 1978b). This study provides detailed information on the procedure used to establish these 15 groups as well as data on the construct and predictive validity of the VII. The procedure involved the discriminant function analysis of the college graduates' high school VII scores. The three most significant discriminant functions (four were found significant) were rotated to a varimax criterion based on the correlations of these functions with the scores of an earlier VII norm group (Lunneborg, 1977b). These three discriminant functions accounted for 85% of the between group differences. Once these discriminant components had been identified, they were scaled and the three mean discriminant scores (centroids) for each of the 15 college majors were computed. Now, each WPC Test-taker's relative proximity to each of the 15 centroids can be computed and the two major areas (centroids) which are closest to the test-taker's scores are reported on the Guidance Report. Twenty-seven percent of the cases were correctly identified (VII scores in high school vs. graduating major). Given the difficulty of predicting graduating major and the results of other measures, even when administered concurrently in the senior year of college (Hanson, 1974), the predictability of the VII appears quite good.

A study that supports this method (Asadullah, 1975) involved an earlier form of the similarity profile report which at that time included WPC Test scores and high school GPAs. Asadullah found that students who entered a college area congruent with their similarity profile tended to have higher GPAs, earned more college credits, and changed their majors less frequently than students who entered a college area that was incongruent with their similarity profile. He also found that a significantly greater number of students changed their major to a college area consistent with WPC similarity information than changed to a college major inconsistent with their WPC similarity information.

SAT Estimates

Recent studies (Greenmun, 1971, 1976) found that the Scholastic Aptitude Test and the WPC Test shared a large amount of common variance in verbal and quantitative abilities. In the 1976 study, the multiple correlations between WPC and the SAT were .88 and .90 in the verbal and mathematical areas, respectively.

The standard error for the estimated SAT scores are 4.9 for both verbal and mathematical estimates. Thus, approximately two-thirds of WPC estimates of SAT scores should be within about 5 points of actually achieved SAT scores.

Requests for Help and Career Plans

As part of the registration procedure, students are asked to respond to questions about their career plans and to check areas in which they feel they will need help. The career plans include college type preference, educational goal, planned major, certainty of planned major, planned occupation, and certainty of planned occupation. Areas where students can request help are mathematics, written English, reading, study skills, and deciding educational and vocational goals.

Career plans and requests for help can be used by counselors and advisors in helping students examine different career directions. They are clearly defined and can be used to initiate discussion at both the high school and the college level.

Research has indicated that expressed occupational choice has fairly good predictive validity (Holland and Gottfredson, 1975; Holland and Lutz, 1968; Whitney, 1969). These studies showed that expressed occupational choice, when categorized into occupational classification systems, successfully predicted entry jobs or subsequent vocational choices. In addition, the enhancement of expressed choice by expressed certainty level of this choice has also been shown (Noeth and Jepsen, in progress).

College Expectancies

This component of the WPC Test is the cornerstone of its development. The

Washington Pre-College Testing Program, in fact, began with the objective of predicting success in many different academic areas (Lunneborg, 1966). The model used to accomplish this, the multiple differential prediction model, provides for the selection of predictors on the basis of their ability to predict differences between the criteria (Horst, 1954). This manner of selecting predictors and reporting predictions highlights differences among the expected levels of performance in the various criterion areas for each student and provides students with information relevant to upcoming career decisions.

This early thinking and basis for development of the WPC Test is later reflected in investigations of career decision-making which emphasized that many students may be capable of making their own subjective probabilities, which involve career decisions, on factual information (Gelatt & Clark, 1967). They recommend that counselors collect and organize a wide base of relevant data which students can use to formulate realistic probability estimates. This often involves some additional effort on the part of counselors in providing students with the most relevant objective information (Dyer, 1957; Noeth, 1976). However, the necessary collection, analysis, and orientation of probabilistic career planning information for students is already accomplished through the reporting methodology of the WPC Test, particularly in the college expectancy section.

Estimates of postsecondary grade performance in the all-college and 48 specific course areas are based on the recently completed validity study (Silva, 1977; Silva & Greenmun, 1978). This study involved a large sample of students (N = 33,162) who entered 18 Washington postsecondary institutions between 1970 and 1973. The colleges who participated in this study and contributed criterion data on the students who completed the WPC Test and entered their institutions are listed on Table 4.

The criterion areas, selected from course areas offered at these institutions, emphasized the first two years of college study (ordinarily course numbers from 100 to 299). College course grades from each of the criterion areas were collected for all WPC Test-takers involved in the study and GPAs for each student were computed. Each case in the validation study represented one student's GPA for a given area regardless of the level of coursework taken. These college performance data were then merged with students' WPC Test data (high school grades and Test scores).

The regression equations were computed separately for each criterion area according to the multiple regression procedures described by Horst and Smith (1950). The independent variables incorporated the regression analyses and are listed in Table 5.

Table 5

WPC Variables Used as Predictors in the Validation Study

High school GPAs	WPC Subtest scores
English	Vocabulary
Mathematics	English usage
Natural science	Spelling
Social studies	Reading comprehension
Foreign language	Applied mathematics
Electives	Mathematics achievement
	Spatial ability
	Mechanical reasoning

Table 6 summarizes the validities and related statistical information for the course areas selected for inclusion on the WPC Guidance Report. Other course areas originally included in the validity study were dropped because of insufficient numbers of students for either the predictor or criterion areas. Any course area that did not reach a minimum validity coefficient of .35 was also dropped from the study.

The standard error of estimate is a measure of discrepancy between the actual achieved GPA and the WPC expected GPA for any given course area. This statistic specifies that two-thirds of the expected GPAs computed by WPC for a given area will be within one standard error of the actual achieved GPA. The validity coefficient is the correlation between the actual achieved GPA and the WPC expected (or predicted) GPA for students in the criterion area. The mean GPA of the criterion is the actual mean GPA achieved by all students included in the validity study for a given course area. The standard deviation of the criterion is the measure of the dispersion of the actual GPA achieved by students included in the study for a given course area. This implies, of course, that about two-thirds of the students obtained a GPA within one standard deviation from the mean GPA achieved in any criterion area.

The probable error of estimate, not shown on Table 6, is similar to the standard error of estimate except that it represents the GPA error dispersion of 50% of the expected GPAs rather than two-thirds. The bandwidth on either side of the I represented by the dashes on the WPC Guidance Report (e.g., ----I----) signifies the probable error for each student on each expected college area GPA.

One disadvantage of the college expectancy bands is that the average GPA achieved in the different college subject areas varies. Thus the same expected GPA may be above average in one college subject area whereas in another subject area it may be below average. The WPC expected score alleviates this problem by providing the student's mean college expectancy for each course area in standard score form. Concurrently criterion group scores for each college expectancy area have been given a standard score mean of

Table 4

Colleges Contributing Criterion Information to the 1977 WPC Validity Study

Four-year colleges	Community colleges
Central Washington University	Bellevue Community College
Eastern Washington University	Centralia Community College
Seattle Pacific University	Columbia Basin Community College
University of Washington	Olympic Community College
Walla Walla College	Shoreline Community College
Washington State University	Skagit Valley Community College
Western Washington University	Spokane Falls Community College
Whitworth College	Tacoma Community College
	Wenatchee Valley Community College
	Yakima Valley Community College

50 and a standard deviation of 10. Thus, a student can see whether he or she might expect to earn an above or below average grade in a particular course area by checking whether his or her expected score for that area is above or below 50.

The probability of students receiving C or above or B or above grades in various college course areas are computed by comparing the expected GPA in the college area with the mean grades achieved by students who actually took courses in these areas. The principle behind this information, which counselors must often gather on their own with other tests, is the employment of expectancy tables (Psychological Corporation, 1949; Wesman, 1966).

The early history of the WPC Test, as reviewed by Lunneborg (1966), reflects the emphasis on the differential predictablity of the battery combined with related academic data. Indeed, this period of time saw considerable work in this area (e.g., Batie, 1965; Dudek, 1952; Horst, 1954; Lounsberry, 1962; Mills, 1957; Reas, 1962; Taylor, 1962). Since that time, further research on the predictive validity of the WPC Test has been carried out.

Continuous overall validation, for example, has always been a part of the Program (Austin, 1969; Silva, 1977). Specific validation efforts have been channeled into a number of areas. Bagley (1966), for example, evaluated the success of the WPC Test predictions at selected state four-year institutions and Lunneborg and Lunneborg (1970) examined the predictability of high school academic data, including WPC Test results, for success in the later years of college study. Both studies supported the use of the WPC battery in predicting postsecondary performance.

The use of the WPC Test in predicting performance at community colleges was examined by Mebus (1968) and Lunneborg and Lunneborg (1969). Both confirmed the use of this measure as a valid predictor of performance at two-year institutions. Finally, Lunneborg, Olch, and de Wolf (1974) investigated the use of the WPC Test as a predictor of performance for older college students and found support for its inclusion at this level.

Career Values—WPC Student Guide

The idea of including career values as a WPC Test component began with the 1979 testing. A career values section now included in the WPC *Student Guide* incorporates an explanation of the concept of career values and an exercise to help stu-

Table 6
Summary of Statistics for WPC College Course Criterion Areas

Criterion areas	N	Standard error of estimate	Validity coefficient	Mean GPA of criterion	Standard deviation of criterion
All-College	33163	62	50	2 71	71
Recreation	816	69	49	2 82	80
Social work	246	83	45	3 03	93
Political science	5238	86	45	2 65	96
Accounting	981	93	46	2 50	1 04
Business administration	4271	82	41	2 54	91
Data processing	155	72	54	2 95	85
Economics	4899	86	43	2 60	95
Secretarial studies	2647	85	36	2 70	92
Auto mechanics	119	60	56	2 62	72
Computer science	1198	94	46	2 81	1 06
Electronics	148	60	66	2 84	81
Engineering	871	82	48	2 95	93
Welding	260	85	44	2 27	95
Agriculture	448	77	37	2 82	84
Animal science	268	62	76	2 50	94
Botany	529	87	44	2 61	97
Environmental studies	1097	76	55	2 30	90
Forestry	547	90	45	2 46	1 01
Geology	4677	88	42	2 68	97
Horticulture	694	66	62	2 60	85
Astronomy	587	98	48	2 41	1 11
Atmospheric science	202	74	55	2 66	88
Bacteriology/Microbiology	722	90	53	2 48	1 06
Biology	11798	84	43	2 54	94
Chemistry	9355	82	42	2 53	91
Health education	2488	74	48	2 87	84
Health technology	215	64	64	2 62	83
Mathematics	13892	92	37	2 66	99
Nursing	475	70	50	2 89	81
Physics	5097	83	44	2 57	92
Zoology	1161	92	45	2 54	1 03
Anthropology	8107	85	42	2 73	94
Communications	1742	77	44	2 73	85
English	21048	75	43	2 81	83
French	1501	83	42	2 90	92
Geography	3587	87	44	2 58	97
German	1384	84	42	2 96	92
History	8172	78	50	2 49	90
Journalism	512	76	45	2 88	85
Philosophy	5290	85	36	2 73	91
Psychology	16142	85	47	2 87	96
Scandinavian languages	229	74	50	2 89	85
Sociology	10910	81	40	2 76	89
Spanish	1289	87	42	2 93	96
Speech	8747	74	39	3 09	80
Interior design	621	64	53	2 81	76
Music	6305	79	39	3 20	86
Photography	156	1 01	52	2 64	1 19

dents explore their own career values. These are later referred to in helping students select occupations and programs of study that appear most interesting to them.

While there has traditionally been no universal definition of terminology for the concept of work or career values (Zytowski, 1970), this approach to career development has become popular in many different settings. Regardless of the precise definition, however, the concept of career values is often used in conjunction with other components of career guidance programs to facilitate career exploration and planning. This approach has proven useful in the counseling process (Zytowski, 1973) and a number of studies have been completed to further substantiate its use as part of this process (e.g., Pryor, 1979; Super, 1973).

Reference Section—WPC Student Guide

The final section of the *Student Guide* allows students to see the relationship among VII interest areas and occupations and programs of study at Washington postsecondary institutions within these areas. The organization is based on Roe's occupational classification scheme (1956). In cases where Roe did not directly list a job as belonging to a particular category, that job was placed within what was believed to be the most appropriate category. This was done after examination of the occupational descriptions in both the *Occupational Outlook Handbook* (U.S. Department of Labor, 1978) and the *Dictionary of Occupational Titles* (U.S. Department of Labor, 1977).

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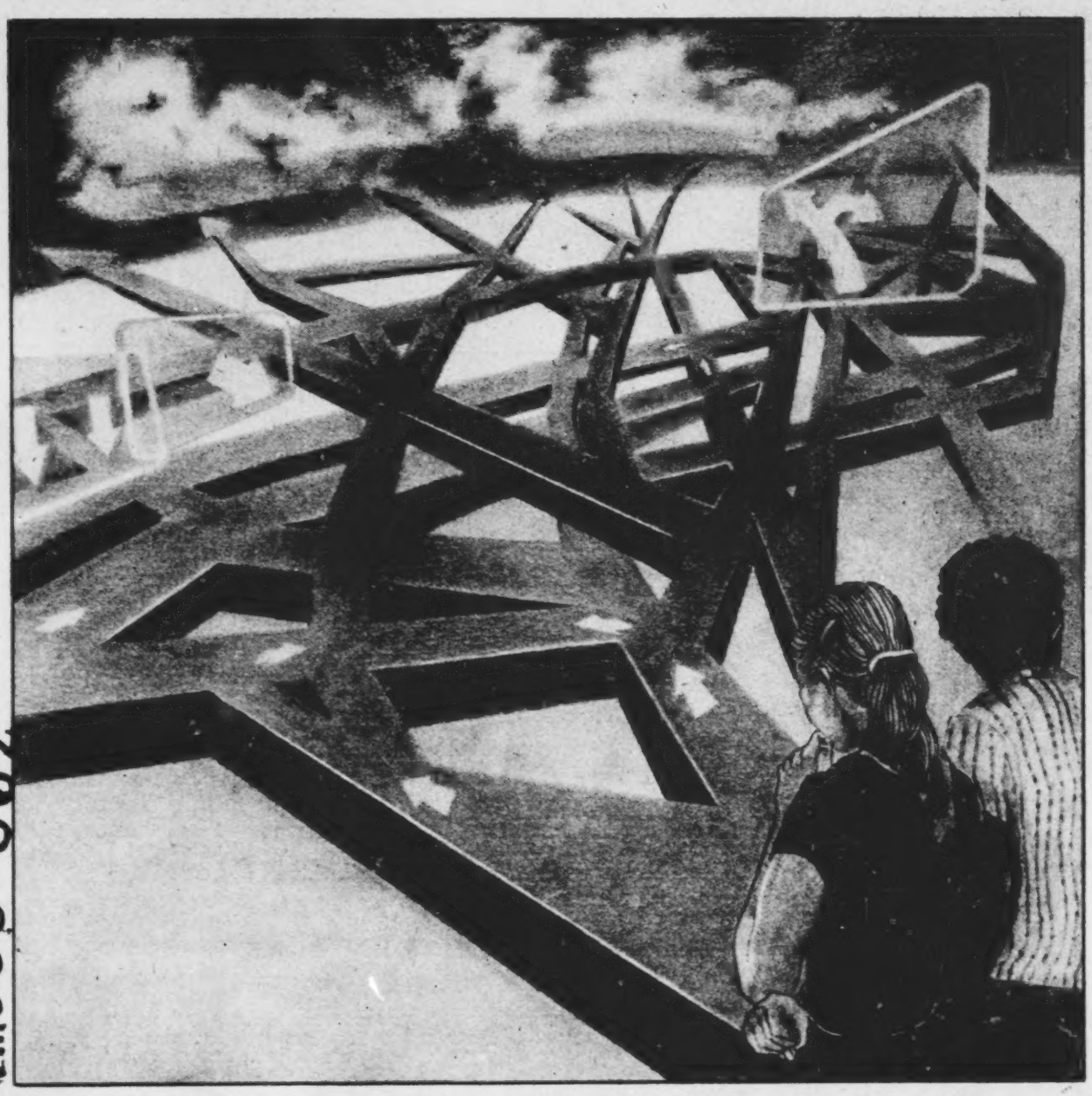
STUDENT GUIDE
1979

Washington
Pre-College
Test



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This booklet was written by Richard J. Noeth, Executive Director, The Washington Pre-College Testing Program. WPC staff members plus a number of counselors and counselor educators in Washington provided many helpful suggestions.

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PART 1
INTRODUCTION

Students today are faced with a rapidly expanding number of career opportunities. Making decisions about which career directions to follow is now quite complex.

Information is one of the major needs for every type of decision-making. You need to know certain things before you can make a decision. Deciding on what you should do after your graduation from high school, for example, requires a lot of information.

If you are considering going to college, you will want to learn all you can about the different colleges you may be considering—

- What programs of study do they offer
- How much will they cost
- How big are they
- Will you be able to do the work at each of them
- Where are they located
- What extracurricular programs do they offer

If you are thinking about different occupations to enter, you might want to find out—

- Whether you would like the day-to-day work in each of them
- How much training you will need
- Will there be future jobs available in these fields
- What are their salary ranges

There are also other types of information you will want to have as you plan your career directions. (Remember, your career is not just one job—it is your lifelong pattern of education, work, and leisure activities).

Another very important area is *self* information. For example, you will want to check which types of occupations and areas of study are most in line with your interests. What your highest ability areas are. What things you value in considering occupations for the future.

It is with this type of *self* information that the Washington Pre-College (WPC) Test can be of real help. The WPC Test can help you examine your vocational interests and relate them to occupations and educational programs around the state. It can help you assess your abilities and estimate your performance in a large number of college course areas. Your WPC Guidance Report in conjunction with your *Student Guide* can help you make the best use of your WPC Test results for career decision-making and planning.

PART 2
YOUR WPC GUIDANCE REPORT

A copy of the WPC Guidance Report, with results for Wilma P. Clark, is shown below. WPC sends five copies of your report to your high school. Four are for you and one is for your counselor. You may make extra copies as you need them. Copies are available from the WPC office for five years after you take the test.

CLARK WILMA P
FEMALE
BIRTHDATE 03/08/62
SS# 458-66-7062

WPC COLLEGE TESTING
WPC ID# 94-600-59990
DATE TESTED 03/01/79

REQUESTS FOR HELP		COLLEGE TYPE PREFERENCE	STATE COLL/REGIONAL UNIV
MATH	YES	EDUCATIONAL GOAL	4 YEAR COLLEGE DEGREE
READING	YES	PLANNED MAJOR	COMMUNICATIONS, GENERAL
WRITING	NO	HOW CERTAIN	FAIRLY SURE
STUDY SKILLS	NO	PLANNED OCCUPATION	ADVERTISING
ED/VOC PLANNING	YES	HOW CERTAIN	FAIRLY SURE

WASHINGTON
Pre-College Test
Guidance Report
07/18/79

WPC TEST SCORES

TEST	SCORE
VERBAL COMPOSITE	58
QUANTITATIVE COMPOSITE	45
ENGLISH USAGE	63
SPELLING	64
READING COMPREHENSION	52
VOCABULARY	52
APPLIED MATHEMATICS	50
MATHEMATICS ACHIEVEMENT	42
SPATIAL ABILITY	38
MECHANICAL REASONING	52

VOCATIONAL INTEREST INVENTORY

A	SERVICE	47
B	SALES	42
C	ORGANIZATION	51
D	TECHNICAL	43
E	OUTDOOR	42
F	SCIENCE	53
G	GENERAL CULTURAL	55
H	ARTS AND ENTERTAINMENT	65

WPC 0475 2/79

HIGH SCHOOL RECORD (GRADES 9-11)

G.P.A.	SUBJECT	SEMESTER CREDIT
3.15	OVERALL	34.00
3.33	ENGLISH	9.00
2.50	MATHEMATICS	4.00
	GENERAL	
	ALGEBRA	2.00
	GEOMETRY	2.00
	ADVANCED	
3.00	SCIENCES	2.00
	BIOLOGY	2.00
	CHEMISTRY	
	PHYSICS	
	OTHER	
3.50	SOCIAL STUDIES	4.00
	FOREIGN LANGUAGE	
	FRENCH	
	GERMAN	
	SPANISH	
	OTHER	
3.13	ELECTIVES	15.00

SIMILARITY OF YOUR INTERESTS TO AREAS OF STUDY

YOUR PATTERN OF INTERST SCORES IS MOST SIMILAR TO THOSE OF COLLEGE GRADUATES WHO MAJORED IN THE FOLLOWING AREAS:

CLOSEST SIMILARITY
ART
SECOND CLOSEST SIMILARITY
FOREIGN LANGUAGES

V 47 M 43

SEE REVERSE SIDE FOR FURTHER EXPLANATION

SUBJECT AREAS		EXPECTED SCORE	CLASS RANK	GPA RANK	COLLEGE EXPECTANCIES (50% CHANCE GRADES WILL AVERAGE WITHIN AREA MARKED) D C B A
ALL COLLEGE		53	74	47	
RECREATION	A	52	93	52	
SOCIAL WORK	A	54	96	71	
POLITICAL SCIENCE	B	53	86	48	
ACCOUNTING	B	50	72	32	
BUSINESS ADMINISTRATION	C	53	85	43	
*DATA PROCESSING	C	49	91	48	
ECONOMICS	C	50	77	34	
*SECRETARIAL STUDIES	C	52	86	48	
*AUTO MECHANICS	D	55	96	53	
COMPUTER SCIENCE	D	48	75	36	
*ELECTRONICS	D	53	97	59	
ENGINEERING	D	47	82	38	
*WELDING	D	53	89	52	
AGRICULTURE	D	53	93	57	
ANIMAL SCIENCE	D	44	48	8	
BOTANY	D	51	80	39	
ENVIRONMENTAL STUDIES	E	50	66	22	
FORESTRY	E	51	75	36	
GEOLOGY	E	50	80	39	
HORTICULTURE	E	46	84	30	
ASTRONOMY	F	50	68	29	
ATMOSPHERIC SCIENCE	F	45	63	16	
BACTERIOLOGY/MICROBIOLOGY	F	52	79	40	
BIOLOGY	F	51	78	34	
CHEMISTRY	F	49	71	25	
HEALTH EDUCATION	F	52	91	55	
*HEALTH TECHNOLOGY	F	57	97	65	
MATH	F	49	76	34	
NURSING	F	53	95	58	
PHYSICS	F	49	74	30	
ZOOLOGY	F	48	64	25	
ANTHROPOLOGY	G	52	86	48	
COMMUNICATIONS	G	53	91	52	
ENGLISH	G	52	92	55	
FRENCH	G	54	89	52	
GEOGRAPHY	G	51	80	32	
GERMAN	G	50	89	52	
HISTORY	G	52	82	38	
JOURNALISM	G	53	93	59	
PHILOSOPHY	G	50	81	39	
PSYCHOLOGY	G	51	89	52	
SCANDINAVIAN LANGUAGES	G	51	92	55	
SOCIOLOGY	G	53	90	55	
SPANISH	G	52	90	52	
SPEECH	H	53	97	68	
INTERIOR DESIGN	H	50	90	41	
MUSIC	H	51	96	67	
*PHOTOGRAPHY	H	57	93	70	

WPC Test Scores

The WPC Test contains eight ability and achievement subtests. Your subtest scores plus two composite scores are reported in this section. Scores are standardized on the entire group of students tested. They are reported in a standard score format so that the average score is 50 and the standard deviation is 10. About 70% of all WPC Test-takers will have scores between 40 and 60.

The two WPC Composites and the eight WPC subtests are described below:

Verbal Composite—a combination of the English usage, spelling, reading comprehension, and vocabulary subtests.

Quantitative Composite—a combination of the applied mathematics and mathematics achievement subtests.

English Usage—tests your knowledge of grammar, correct word usage, punctuation, and capitalization.

Spelling—measures your ability to identify misspelled words.

Reading Comprehension—tests your ability to derive stated or implied meanings from paragraphs.

Vocabulary—measures your knowledge of the meaning of words.

Applied Mathematics—tests your ability to solve problems of basic arithmetic and elementary algebra.

Mathematics Achievement—measures your knowledge of geometry and intermediate algebra.

Spatial Ability—tests your ability to visualize figures in three dimensions.

Mechanical Reasoning—measures your ability to understand physical principles as applied to mechanical devices.

One way to look at your scores is to compare them with other WPC Test-takers. Chart 1, *All High School Students Who Took The WPC Test in 1978*, enables you to do this. It is a percentile conversion chart based on all high school students, almost 30,000, who took the WPC Test last year.

Before you use this chart, remember that it allows you to compare yourself with *only* WPC Test-takers. These are students who usually plan on further education after high school. For this reason, your standing may be lower than if you had compared yourself to all high school students, many of whom have no present plans for further education.

This chart allows you to see your own self-profile as well as your standing relative to other WPC Test-takers by converting your standard scores to percentiles. To do this, find and circle each of your WPC Test composite and subtest scores on this chart. (If your *exact* score is not on the chart, circle the closest one.) Wilma P. Clark (whose scores are on page 2), would circle 58 under verbal composite, 45 under quantitative composite, etc., on this chart. After you have circled your scores, connect them with straight lines in succession, beginning with your verbal composite score. As you look at your line profile, observe your high and low areas. Scores that differ by five or more points could be considered good indicators of differing levels of ability in the areas compared.

Once you have drawn your profile, find the percentile equivalent to your WPC Test scores in the left hand column of the chart. This will enable you to compare your scores directly with those of other WPC Test-takers. For Wilma Clark, her verbal composite score of 58 would be equivalent to a percentile score of 80. This means that she scored higher than 80 per cent of all WPC Test-takers on the verbal composite. As you can see percentiles can help you to better understand your position in a particular group.

CHART 1. ALL HIGH SCHOOL STUDENTS WHO TOOK THE WPC TEST IN 1978

Percentile Equivalent	WPC TEST SCORES										HIGH SCHOOL RECORD—GPAs							Percentile Equivalent
	Verbal Composite	Quantitative Composite	English Usage	Spelling	Reading Comprehension	Vocabulary	Applied Mathematics	Mathematics Achievement	Spatial Ability	Mechanical Reasoning	Overall	English	Mathematics	Sciences	Social Studies	Foreign Language	Electives	
99	71	70	72	69	67	71	67	73	67	68	4.00	4.00	4.00	4.00	4.00	4.00	4.00	99
95	66	67	65	66	64	66	66	67	65	66	3.89	3.98	3.97	3.99	3.99	3.99	3.99	95
90	62	64	61	64	61	63	64	63	64	62	3.77	3.88	3.80	3.97	3.97	3.97	3.98	90
85	60	62	58	60	60	59	63	61	61	61	3.68	3.79	3.62	3.78	3.83	3.96	3.91	85
80	58	60	57	59	59	57	60	59	60	58	3.59	3.67	3.49	3.65	3.75	3.94	3.83	80
75	56	58	54	58	57	55	58	57	58	56	3.50	3.57	3.33	3.50	3.60	3.76	3.75	75
70	54	57	52	55	56	53	57	56	57		3.42	3.50	3.17	3.36	3.50	3.66	3.68	70
65	53	55	51	54	55	52	55	54		55	3.33	3.36	2.99	3.24	3.40	3.49	3.60	65
60	51	53	49	53	52	49	54	53	55	52	3.26	3.29	2.97	3.00	3.25	3.48	3.51	60
55	50	52	47	51	51		53	52	52	51	3.18	3.17	2.78	2.98	3.20	3.25	3.48	55
50	48	50	46	49	50	48	51	50	50	50	3.10	3.08	2.67	2.96	3.00	3.01	3.38	50
45	47	49	45	48	49	45	49	48		49	3.03	3.00	2.50	2.75	2.98	3.00	3.30	45
40	45	47	43	47	47	44	47	47	48		2.95	2.86	2.49	2.66	2.83	2.99	3.20	40
35	44	45	42	46	46	43	46	45	46	46	2.87	2.78	2.33	2.49	2.75	2.74	3.10	35
30	42	44	41	44	43	41	44	44	43	45	2.78	2.67	2.20	2.44	2.60	2.50	3.00	30
25	41	42	40	42	41		42	42	41	41	2.69	2.50	2.00	2.24	2.49	2.48	2.93	25
20	39	40	39	40	40	39	39	40	39	40	2.59	2.40	1.98	1.99	2.33	2.18	2.78	20
15	37	38	37	38	38	37	37	38	38	38	2.47	2.25	1.80	1.97	2.17	1.97	2.63	15
10	35	35	36	36	33	35	35	35	34	35	2.32	2.00	1.66	1.75	1.98	1.83	2.44	10
5	32	32	32	32	30	32	31	32		33	2.11	1.80	1.34	1.48	1.66	1.44	2.14	5
1	28	28	31	31	23	31	28	28	33	32	1.70	1.28	.93	.95	1.16	.81	1.66	1

Note: A blank space appears where there is no corresponding WPC standard score for a given percentile

High School Record (Grades 9-11)

Your WPC Guidance Report contains a summary of your high school grades and credits for ninth through eleventh grade. These are provided directly from your high school. If errors exist in a particular subject area, see your counselor.

As with your WPC Test scores, there are two ways to look at your high school grades. First, look at your high and low areas. Consider subject areas that differ by .35 or more from other subjects to be areas where you have shown major differences in performance. Then, use Chart 1, *All High School Students Who Took the WPC Test in 1978*. Find and circle each of your grades and connect them as you did with your WPC Test scores. Now locate the percentile equivalents of your grades. These will tell you how your grades compare to all other WPC Test-takers.

Vocational Interest Inventory©

The Vocational Interest Inventory (VII) can help you in making career plans. It provides you with eight interest scores. Each occupation in the world-of-work has been categorized into one of these eight VII interest areas. These areas are based on the kinds of activities done by people who work in the jobs. Your VII scores show you how interested you might be in working in each of the eight areas.

The eight interest areas and a brief explanation of each are:

A. **Service** - attending to the tastes, needs, and welfare of others through guidance, personal, and protective services;
B. **Sales (Business Contact)** - using face-to-face personal persuasion to sell commodities, services, or investments;
C. **Organization** - working as a manager, owner, or office staff person in business, industry, or government;
D. **Technology** - concerned with production, maintenance, and transportation of commodities and utilities;
E. **Outdoor** - involvement with such things as agriculture, fishery, forestry, or mining;
F. **Science** - employing scientific theory and its application in all natural sciences under circumstances other than technology and outdoor areas;
G. **General Cultural** - working in occupations related to study in humanities and social science, activities that involve our social and cultural background;
H. **Arts and entertainment** - using special skills in creative arts and entertainment.

Specific occupations in each of the eight VII areas are listed in the Reference Section on pages 11-27 of this *Guide*. These occupations are categorized by amounts of training typical of workers on the job. Programs of study related to these occupations are also listed.

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Your VII Profile

Unlike WPC ability and achievement tests, there are no right or wrong answers on the VII. Your responses are always right in that they reflect your own particular likes and dislikes for certain career-related activities.

One way to look at your interests is to draw a profile of them as you did with your other WPC Test scores. This will tell you where your interests fall compared to other individuals. Create your VII profile by circling your VII scores on Chart 2. Wilma Clark, for example, would circle 47 and 42 for her VII Service and Sales scores. Now connect the circles sequentially with straight lines. The percentile column allows you to see what percent of WPC Test-takers you scored above on each of the eight interest scales.

A second way to examine your interests is to simply look at your scores on your Guidance Report. This permits a *self* comparison, allowing you to see your own high and low interests without having to compare them to other students' VII scores. These tell you which areas are your highest and lowest without you having to determine how high or how low they are in terms of percentiles based on others' scores.

CHART 2. YOUR VII PROFILE

Percentile Equivalent		VII Scales									Percentile Equivalent
		Service	Sales (Business Contact)	Organization	Technical	Outdoor	Science	General Cultural	Arts & Entertainment		
	99	72	73	74	72	70	72	76	72	99	
	95	66	66	67	66	66	67	67	66	95	
	90	62	63	63	62	63	63	62	63	90	
	85	60	60	60	60	60	60	60	61	85	
	80	58	58	58	58	58	59	57	58	80	
	75	56	56	56	56	57	57	56	56	75	
	70	55	55	54	54	55	55	54	55	70	
	65	53	53	53	53	54	54	52	53	65	
	60	51	51	51	51	52	52	51	52	60	
	55	50	50	50	50	51	50	50	51	55	
	50	49	49	49	49	49	49	49	49	50	
	45	47	48	48	47	48	48	47	48	45	
	40	46	47	46	46	47	46	46	46	40	
	35	45	45	44	45	45	45	45	45	35	
	30	44	44	43	43	44	44	43	44	30	
	25	42	42	42	42	42	43	42	42	25	
	20	40	40	41	40	41	41	41	41	20	
	15	38	39	39	38	38	39	39	38	15	
	10	36	36	37	36	36	37	37	36	10	
	5	33	33	35	33	33	33	34	33	5	
	1	26	27	29	27	27	29	30	27	1	

Using Your VII for Career Planning

Look at your VII scores on your Guidance Report, your *self* comparison, and list your three highest areas in the spaces provided below.

Highest VII Areas

(1st) _____

(2nd) _____

(3rd) _____

Now turn to the Reference Section of this *Guide* and look at the jobs and programs of study listed under each of your three highest areas. From these areas, list jobs and related programs of study that you are most interested in.

Jobs

_____ _____

_____ _____

_____ _____

Programs of Study

_____ _____

_____ _____

You have now listed some preferred educational and occupational options based on your interest areas.

Keep these jobs and programs of study you have listed in mind. You will need to refer to them as you work through the rest of this *Guide*.

Similarity of Your Interests to Areas of Study

This section of the Guidance Report is a unique part of your WPC Test results. It allows you to see the similarity of your VII scores to those of college graduates who took the WPC Test when they were in high school. Thus, you can see what programs people completed who had interest scores much like yours. The 15 college graduate major areas are listed on your Guidance Report.

Your closest and second closest areas of similarity are printed on your Guidance Report. Write them below as well:

Closest _____

Second Closest _____

To learn more about programs of study and occupations within these two areas use the Reference Section of this *Guide*. First find specific programs of study that are like these two similarity of interest areas and then list jobs that you are interested in from these areas. You can list these below:

Programs of Study

_____ _____

Jobs

_____ _____

_____ _____

_____ _____

_____ _____

Again, keep these in mind as well as those you have listed on page 5 as you work through this *Guide*.

Exploring Nontraditional Career Options

One unfortunate consequence of focussing on your highest VII scores is that you might only be considering areas in which your sex has traditionally scored high. For example, men traditionally score high in the Sales (Business contact), Technical, and Outdoor interest areas and women often score high on the Service, General Cultural, and Arts and Entertainment areas. Because opportunities are brighter now for men in what were once thought of as women's jobs (teaching, nursing, child care, social service, office and clerical work), they should not be discouraged from exploring these areas. Likewise, because opportunities are presently better for women in what were once thought of as men's jobs (technical and outdoor work, skilled crafts, business administration, management), they should explore such possibilities even though these interest areas were not their highest.

For exploring nontraditional areas, then, use the 50th percentile on your VII profile as a guide. If you score above the 50th percentile in a not-traditional-for-your-sex area, that's high enough for career exploration. And because you have much to gain by expanding your career planning into new and different areas, look into your highest nontraditional score. For men, this would be the Service or General Cultural or Arts and Entertainment areas. For women, this would be the Sales (Business contact) or Technical or Outdoor areas.

Write your highest not-traditional-for-your-sex interest area here _____.

Now, turn to the Reference Section and look at the jobs and programs of study listed under this area and write down some jobs and programs that sound interesting to you.

Jobs

_____ _____

_____ _____

Programs of Study

_____ _____

Requests for Help and Career Plans

You responded to the items in the upper right hand corner of your Guidance Report when you completed the WPC Test. Your counselor can discuss these areas with you. Also, your post-secondary institution might want to use them for advising purposes and to inform you about programs available concerning career planning, writing skills, etc. Your educational goal, planned major, etc., will allow you to look at your career-related preferences when you took the WPC Test to see whether they have changed since then. List your planned major (program of study) and planned occupation from your Guidance Report below:

Major _____

Occupation _____

We will come back to these later.

College Expectancies

This section of your WPC Guidance Report is another unique feature of the WPC Test. It provides some useful information about college students who had WPC Test scores and grades similar to yours when they were in high school. You can see how individuals who had these scores and grades performed in many different college course areas.

There are 48 specific subject areas and one all-college area. Courses are grouped by VII areas (A-H) to help you relate your interests to your estimates of performance. Thus, the Recreation and Social Work subject areas are both in the *A* category which refer to the VII Service area.

There are three columns to the right of the subject areas: Expected Score, C or Above, and B or Above.

Expected Score

Your expected score gives you an estimate of your expected performance compared to other students in the all-college and each subject area. As students' grades vary from subject to subject (e.g., 2.5 may be the average grade in one subject but not in another) they have been standardized so that the average grade in each area is shown as a score of 50. In one case 50 may equal a 2.5 and in another a 2.8. If your expected score is above 50 for a particular subject, chances are you will earn above average grades in that area. For example, Wilma Clark's expected all-college score is 53. This means that she has a good chance of doing slightly better than average work, almost 3.0, in all of her college courses.

C or Above and B or Above

These two columns indicate your chances of obtaining C or higher or B or higher grades in each particular area. For example, in the recreation area Wilma Clark had a 93 in her C or Above column and a 52 in her B or Above column. This means that 93 percent of the students with test scores and high school grades similar to her received grades of C or better and 52 percent received grades of B or better in their postsecondary recreation courses.

These bands represent the range of college grades achieved by 50% of the students who had high school grades and WPC Test scores similar to yours. The letter "I" (for individual) is the center of this band (i.e., ----I----) and indicates the most likely grade average you will achieve in a particular area based on your WPC Test scores and grades. The letter "X" indicates the average grade of Washington students who actually completed college courses in the particular area. A " + " appears when the "I" and "X" coincide.

College Grade Expectancy Bands

Looking at Wilma Clark's Guidance Report, we see that her band in the recreation area extends from about 2.5 to 3.5. Of all college students with WPC Test scores and high school grades similar to Wilma's, 50% of them made recreation course grades within this band. About 25% earned grade averages lower than this range and 25% earned grade averages higher than this range. Another way to look at Wilma's expectancy band in this area is to say that 75% of the college students with WPC Test scores and high school grades like Wilma's earned recreation grades above a 2.5.

PART 3
CAREER VALUES

There are many ways to explore career directions. Ability and achievement test scores, like those on the WPC Test, and your high school grades can help you see related educational programs and job areas where you might be successful. Your VII scores can help you see occupations and programs of study which are in line with your high interest areas.

Another way of exploring and deciding upon tentative career directions is to see how your career values mesh with the occupations you are considering. Career values are the types of things about a job (e.g., pay, coworkers, interesting work tasks, etc.) that fit into your ideas about what makes a job enjoyable and compatible with your lifestyle. Thus, in choosing a career direction it might be helpful to look at the work environments in which jobs occur to see if these environments are compatible with your values.

To do this, first complete the exercise below. This will help you examine your own career values and see which ones are most important to you.

Examining Your Career Values

Many of the things that people value in a job are listed below. Circle the three that you feel are most important to you in selecting an occupation.

- Geographic location of the job
- Being well paid for your work
- Working indoors mostly
- Working outdoors mostly
- Having a steady, secure job
- Having one or two work tasks
- The size of the company, agency, or work setting
- Working with people you like
- Being the boss
- Doing work that you enjoy
- Being appreciated and recognized for your work
- Working flexible hours
- Having a variety of work tasks
- Having a chance for promotion

Now look at the three career values you have circled. Rank them in order of importance to you below:

Most important _____

Second most important _____

Third most important _____

The next part will help you combine the jobs and programs of study you are considering with your career values. Then you can go on to further plan some possible career directions.

PART 4
CONSIDERING CAREER DIRECTIONS

The major purpose of the WPC Test is to provide you with information about yourself as related to the worlds of education and work. With this and other information, you should be able to continue (or begin) your search for the most satisfying career directions to follow. We are not suggesting you make premature or final decisions. We are suggesting, however, that you increase your exploration of programs of study and occupations and perhaps begin to focus on some areas that seem appropriate to your career skills, interests and values.

One way to do this is to look at some of the occupations and programs of study you have listed that are in line with your interests. So, look back on pages 5, 6, and 7 to those you have listed. Select the jobs that you are *most* interested in from these and list them below:

(✓) Jobs

Now, check (✓) those jobs, on the line to the left, that appear to be in line with your career value ratings on the previous page. For these, list the related programs of study to the right. If none of the above fit your ratings, you may wish to reconsider your career values or list other jobs of interest to you.

Programs of Study

You have now identified jobs and programs of study leading to them that are consistent with your career values. To learn as much as you can about them, go on to the next section.

PART 5
INFORMATION RESOURCES ABOUT OCCUPATIONS AND PROGRAMS OF STUDY

Now that you have identified some occupations and programs of study, you will most likely want to find out more about them. To help you do this we have listed resources that will tell you more about the work activities in a particular job, the employment outlook, specific courses involved in a program of study, etc.

People

- Your high school counselor can help you make the best use of the WPC Test and other information for career decision-making and planning. Your counselor can also act as a resource person and help you identify workers, graduates, and others who may be involved in programs or jobs in which you are interested.
- Personnel at postsecondary institutions such as admissions officers, financial aid counselors, placement counselors, and others can tell you about the programs available at their institutions, requirements for admission, credit or advanced placement opportunities, various types of financial aid assistance, jobs taken by their graduates, etc.
- Librarians can help you find information about career planning, various college programs, different occupations, etc.
- Workers on jobs you are interested in can tell you about their occupations, how they prepared for them, the skills they need on the job, etc.
- Students from your high school who are enrolled in programs of study can tell you about courses they are taking, why they have chosen these particular areas, and their future career plans.

Materials—Occupations

- *Occupational Outlook Handbook* describes occupations, training needed, employment outlook, pay, and other information about jobs. Washington, D.C.: U.S. Government Printing Office. (Revised every two years.)
- Job information pamphlets, brochures, and books that cover many different kinds of jobs, employment trends, etc. These can usually be found in your school guidance office and school and local library.
- *Dictionary of Occupational Titles* includes descriptions of job duties and related information for almost every occupation in the United States. Washington, D.C.: U.S. Department of Labor, Fourth Edition, 1977.
- Washington Occupational Information System (WOIS) is a computerized method for exploring occupations and related programs of study in Washington. This information is also available on printed files and microfiche. WOIS is available at most Washington high schools and community colleges.

Materials—Postsecondary Institutions

- *Mapping Your Education* provides information about postsecondary institutions in Washington and Oregon and includes information on programs of study, costs, admissions procedures, etc. Newport, Oregon: Bell Publishing Company. (Revised annually.)
- *Barron's Profiles of American Colleges* includes information about costs, programs of study, admissions policies, etc., for postsecondary institutions nationally. Woodbury, New York: Barron's Educational Series, Inc.
- *Barron's Guide to Two-Year Colleges* provides information about academic and occupational programs, costs, etc. Woodbury, New York: Barron's Educational Series, Inc.

The above are just a few of the many resources available to you as you make career decisions and plans. Your school guidance office is perhaps the best place to go to learn more about these and other resources.

PART 6
REFERENCE SECTION

This part is categorized into eight sections, each representing one of the VII areas. These areas, labeled A-H, are briefly defined on page 4 of this *Guide*. They are identical to the college expectancy subject areas, A-H, on your WPC Guidance Report.

Each of the eight areas includes occupations and programs of study (listed for all postsecondary institutions in Washington) that are related to that particular interest area. Occupations are broken down by the typical level of preparation for the job.

Occupational Charts

The jobs listed on these charts are representative of all occupations in each interest area. Almost every job has a compatible program of study at a Washington institution. Jobs are categorized on these charts by three levels of preparation: high school graduation plus varying degrees of on-the-job training; up to two years of college or technical school training; three or more years of college preparation. Jobs in these charts are listed under the type of preparation typical of most workers in that field.

Programs of Study

Programs included are available at the institutions listed. This information is updated yearly for WPC by these institutions. Three categories of programs are listed here: four-year programs which generally lead to employment, although some lead to graduate school; community college transfer programs for students planning to transfer to a four-year college after two years in a community college; and community college and vocational-technical institute programs which lead directly to employment.

Institutions included in this section:

Four-Year Colleges
Central Washington University (CWU)
City College (CC)
Cornish Institute of Applied Arts (CIAA)
Eastern Washington University (EWU)
The Evergreen State College (ESC)
Fort Wright College (FWC)
Gonzaga University (GU)
Northwest College of the Assemblies of God (NC)
Pacific Lutheran University (PLU)
Prometheus College (PC)
St. Martin's College (SMC)
Seattle Pacific University (SPU)
Seattle University (SU)
University of Puget Sound (UPS)
University of Washington (UW)
Walla Walla College (WWC)
Washington State University (WSU)
Western Washington University (WWU)
Whitman College
Whitworth College

Community Colleges
Bellevue Community College
Big Bend Community College
Centralia Community College
Clark Community College
Columbia Basin Community College
Edmonds Community College
Everett Community College
Fort Steilacoom Community College
Grays Harbor Community College
Green River Community College
Highline Community College
Lower Columbia Community College
North Seattle Community College
Olympia Technical Community College
Olympic Community College
Peninsula Community College
Seattle Central Community College
Shoreline Community College
Skagit Valley Community College
South Seattle Community College
Spokane Community College
Spokane Falls Community College
Tacoma Community College
Walla Walla Community College
Wenatchee Valley Community College
Whatcom Community College
Yakima Valley Community College

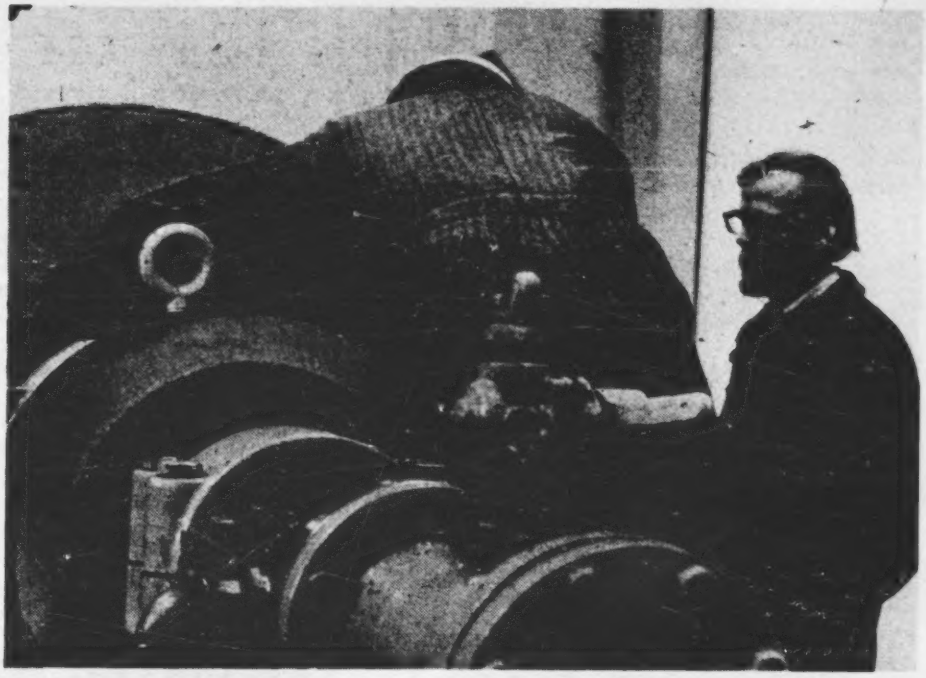
Vocational-Technical Institutes
L. H. Bates Vocational-Technical Institute
Bellingham Vocational-Technical Institute
Clover Park Vocational-Technical Institute
Lake Washington Vocational-Technical Institute
Renton Vocational-Technical Institute

Interest Area A: Service

Occupational Chart

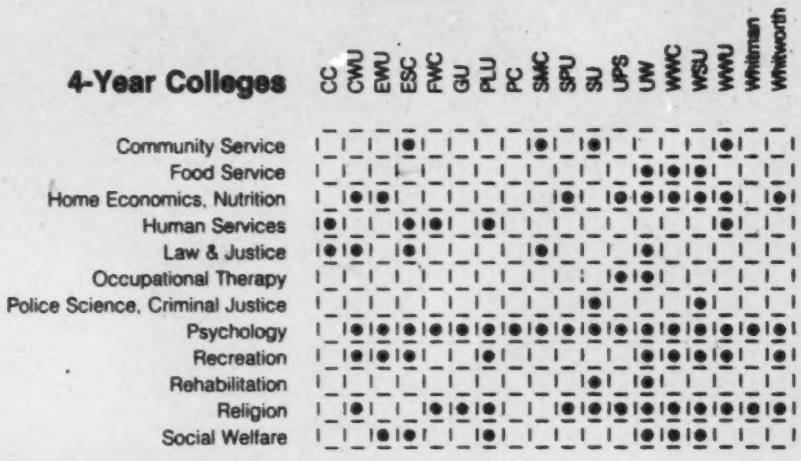
High school graduation and on-the-job-training	Up to two years of college or technical school	Three or more years of college
Bartender	Barber	Clinical/counseling psychologist
Bellhop	Case aide	Clergy member
Chauffeur	Chef	Community worker
Cook	Childcare aide	Counselor
Custodian	Church youth worker	Employment interviewer
Garbage collector	Cosmetologist	FBI agent
Guard	Counselor aide	Home economist
Housekeeper	Customer representative	IRS investigator
Maid	Customs agent	Nutritionist
Porter	Detective	Occupational therapist
Taxi driver	Driver's license examiner	Police chief
Usher	Fire fighter	Probation officer
Valet	Flight attendant	Recreation leader
Waiter/waitress	Food service worker	Social worker
	Funeral director	
	Handicapped aide	
	Hairdresser	
	Occupational therapy aide	
	Police officer	
	Recreation aide	
	Social service aide	
	Travel guide	

Jobs are listed in each of the three categories by the amount of preparation most workers typically have for the job. However, some workers enter jobs with varying amounts of preparation. Use the references in this *Guide* and check with your counselor to learn more about entry requirements for particular jobs.

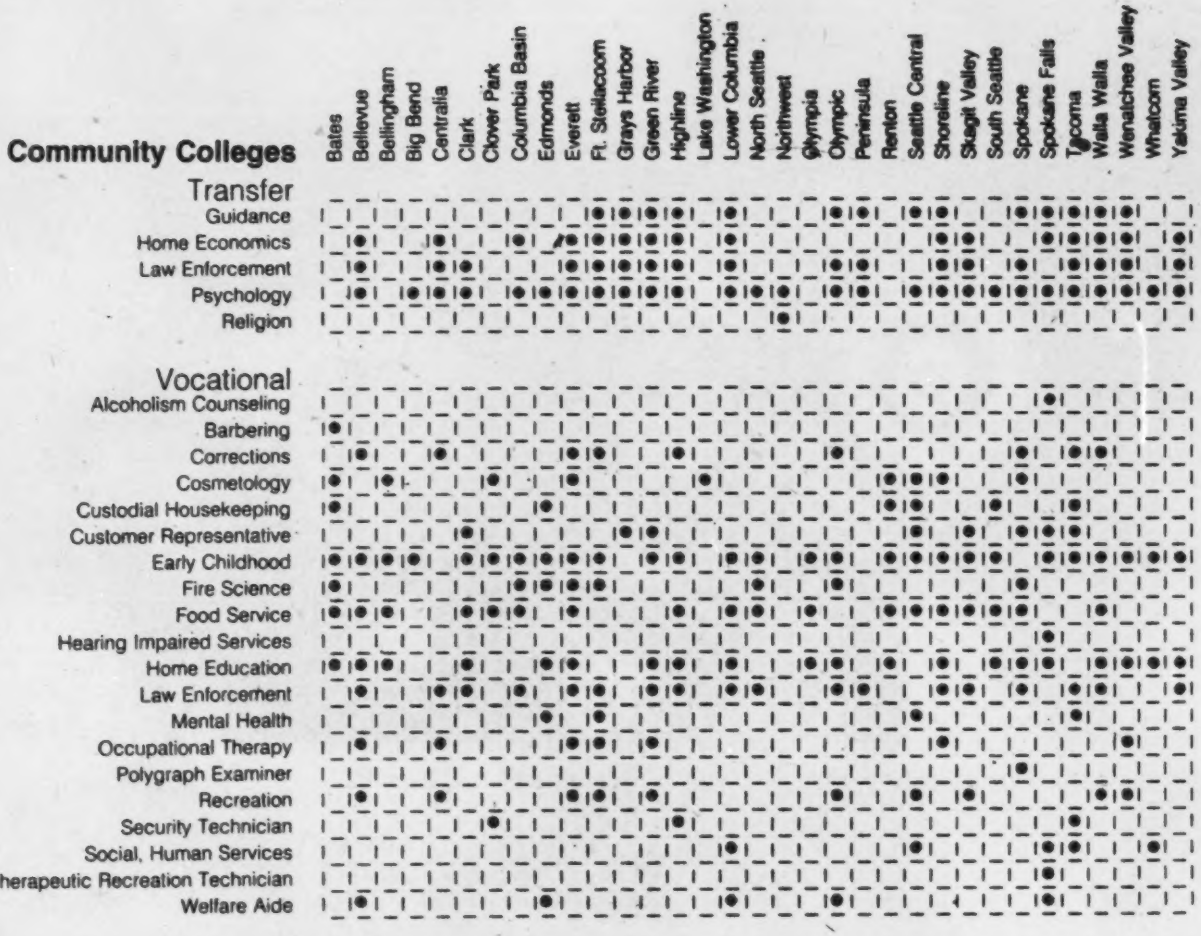


Programs of Study

4-Year Colleges



Community Colleges



Interest Area B: Sales (Business Contact)

Occupational Chart

High school graduation and on-the-job training	Up to two years of college or technical school	Three or more years of college
Auctioneer	Business developer	Advertising sales
Automobile sales	Buyer	Business agent
Canvasser	Industrial sales	Business promoter
Demonstrator	Insurance agent	Convention promoter
Fund raiser	Manufacturer's representative	Lobbyist
Interviewer	Real estate agent	Marketing representative
Peddler	Sales manager	Public relations
Promoter		Securities and investment sales
Sales person		
Sample distributor		
Survey taker		
Telephone solicitor		
Vendor		

Jobs are listed in each of the three categories by the amount of preparation most workers typically have for the job. However, some workers enter jobs with varying amounts of preparation. Use the references in this *Guide* and check with your counselor to learn more about entry requirements for particular jobs.

Programs of Study

4-Year Colleges

	CC	CWU	EWU	ESC	FWC	GU	PLU	PC	SMC	SPU	SU	UPS	UW	WWC	WSU	WWU	Whitman	Whitworth
Business Marketing	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●		●
Public Information	●			●												●		●

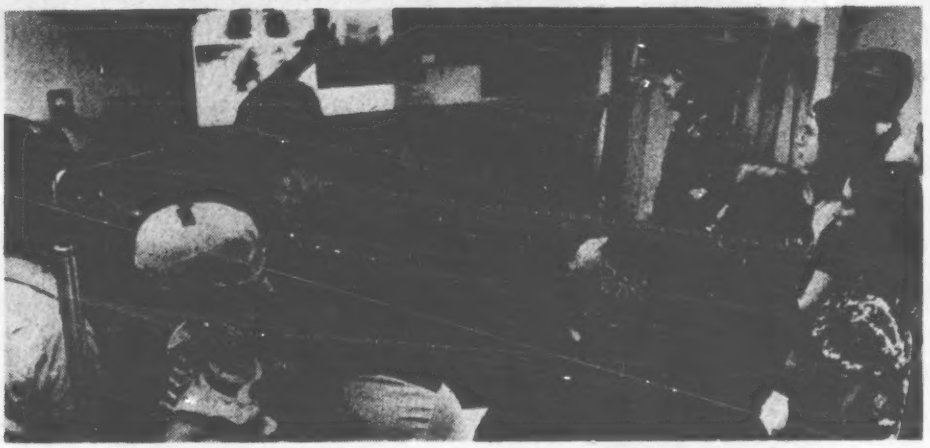
Community Colleges and Technical Institutions

Transfer

	Bates	Bellevue	Bellingham	Big Bend	Centralia	Clark	Clover Park	Columbia Basin	Edmonds	Everett	Ft. Steilacoom	Grays Harbor	Green River	Highline	Lake Washington	Lower Columbia	North Seattle	Northwest	Olympia	Olympic	Peninsula	Renton	Seattle Central	Shoreline	Skagit Valley	South Seattle	Spokane	Spokane Falls	Tacoma	Walla Walla	Wenatchee Valley	Whatcom	Yakima Valley
Business marketing		●		●	●	●		●	●	●	●	●	●	●		●	●		●	●	●		●	●	●	●	●	●	●	●	●		●

Vocational

Industrial Sales						●																					●			●			
Insurance																	●					●	●				●	●	●	●			
Insurance Technician																												●					
Marketing			●		●	●	●	●	●	●	●	●	●	●	●	●		●	●		●		●	●	●		●	●		●	●		●
Real Estate		●				●	●	●	●	●	●	●		●	●	●	●	●	●	●	●		●	●	●		●	●		●	●	●	●
Sales	●		●		●	●	●	●	●	●	●	●		●	●	●		●	●	●	●	●	●	●	●		●	●		●	●	●	●



Interest Area C: Organization

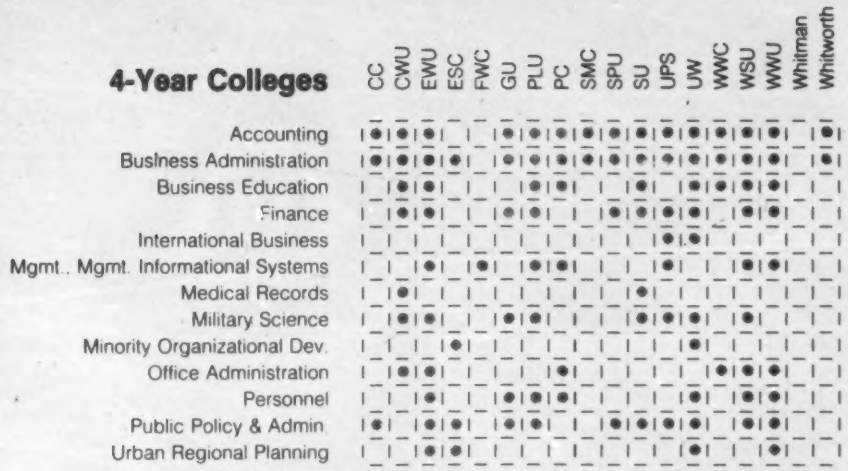
Occuptional Chart

High school graduation and on-the-job training	Up to two years of college or technical school	Three or more years of college
Bank teller	Administrative assistant	Accountant
Cashier	Appraiser	Actuary
Checker	Bookkeeper	Arbitrator
Clerk	Business manager	Auditor
Dispatcher	Claims taker	Bank officer
Freight agent	Clerk typist	City planner
Mail carrier	Estimator	Credit manager
Messenger	Institutional manager	Corporate officer
Receptionist	Insurance policy writer	Employment manager
Retail sales clerk	Keypunch operator	Government official
Switchboard operator	Legal, medical, executive secretary	Hospital administrator
Toll collector	Office machine operator	Legislator
Union official	Parts counterperson	Management analyst
	Restaurant manager	Market researcher
	Secretary	Medical records coordinator
	Service representative	Personnel administrator
	Small business owner	Property manager
	Stenographer	Purchasing agent
	Supervisor	Stockbroker
	Traffic manager	Treasurer
	Travel agent	

Jobs are listed in each of the three categories by the amount of preparation most workers typically have for the job. However, some workers enter jobs with varying amounts of preparation. Use the references in this *Guide* and check with your counselor to learn more about entry requirements for particular jobs.

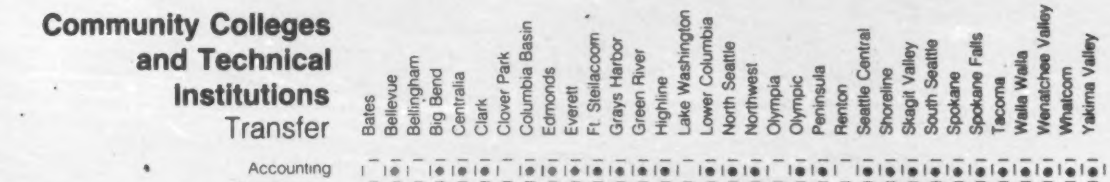
Areas of Study

4-Year Colleges

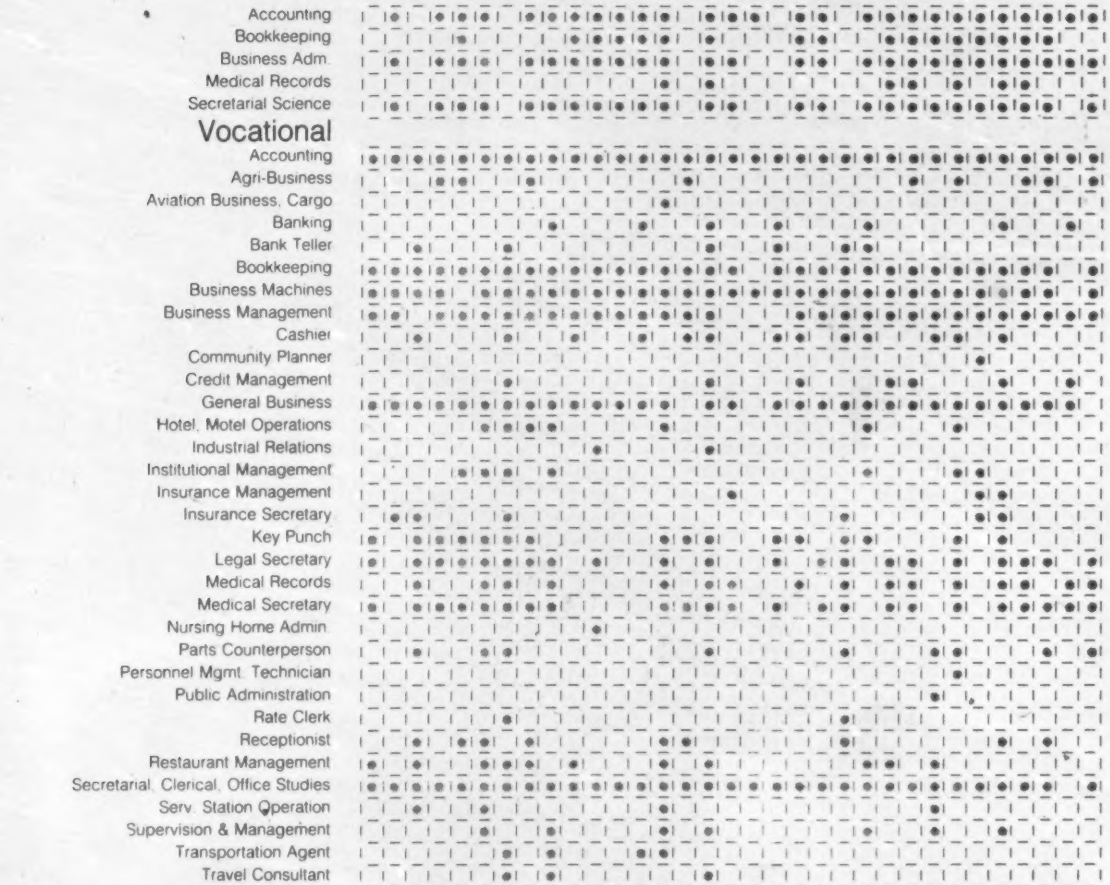


Community Colleges and Technical Institutions

Transfer



Vocational



Interest Area D: Technical

Occupational Chart

High school graduation and on-the-job training	Up to two years of college or technical school		Three or more years of college
Assembler	Air traffic controller	Mechanic	Airline pilot
Bus driver	Autobody repairperson	Offset pressperson	Computer programmer
Cannery worker	Baker	Painter, paperhanger	Construction superintendent
Car washer	Boilermaker	Photoengraver	Engineer
Construction worker	Bricklayer	Plasterer	Engineering analyst
Factory worker	Broadcast technician	Plumber	Facilities planner
Foundry worker	Butcher	Press operator	Flight engineer
Grinder	Carpenter	Printer	Industrial designer
Hod carrier	Cement mason	Radio operator	Marine engineer
Installer	Contractor	Railroad worker	Navigator
Laborer	Data processor	Repairperson	Production manager
Machine tender	Drafter	Roofer	Sea Captain
Meat wrapper	Dressmaker/tailor	Sheetmetal worker	Systems analyst
Packer	Electrician	Shipfitter	
Rigger	Electronics technician	Technician	
Route worker	Engineering technician	Teletypist	
Section hand	Heavy equipment operator	Tool & diemaker	
Service station worker	Jeweler	Truck driver	
	Machinist	Upholsterer	
	Manufacturer	Welder	

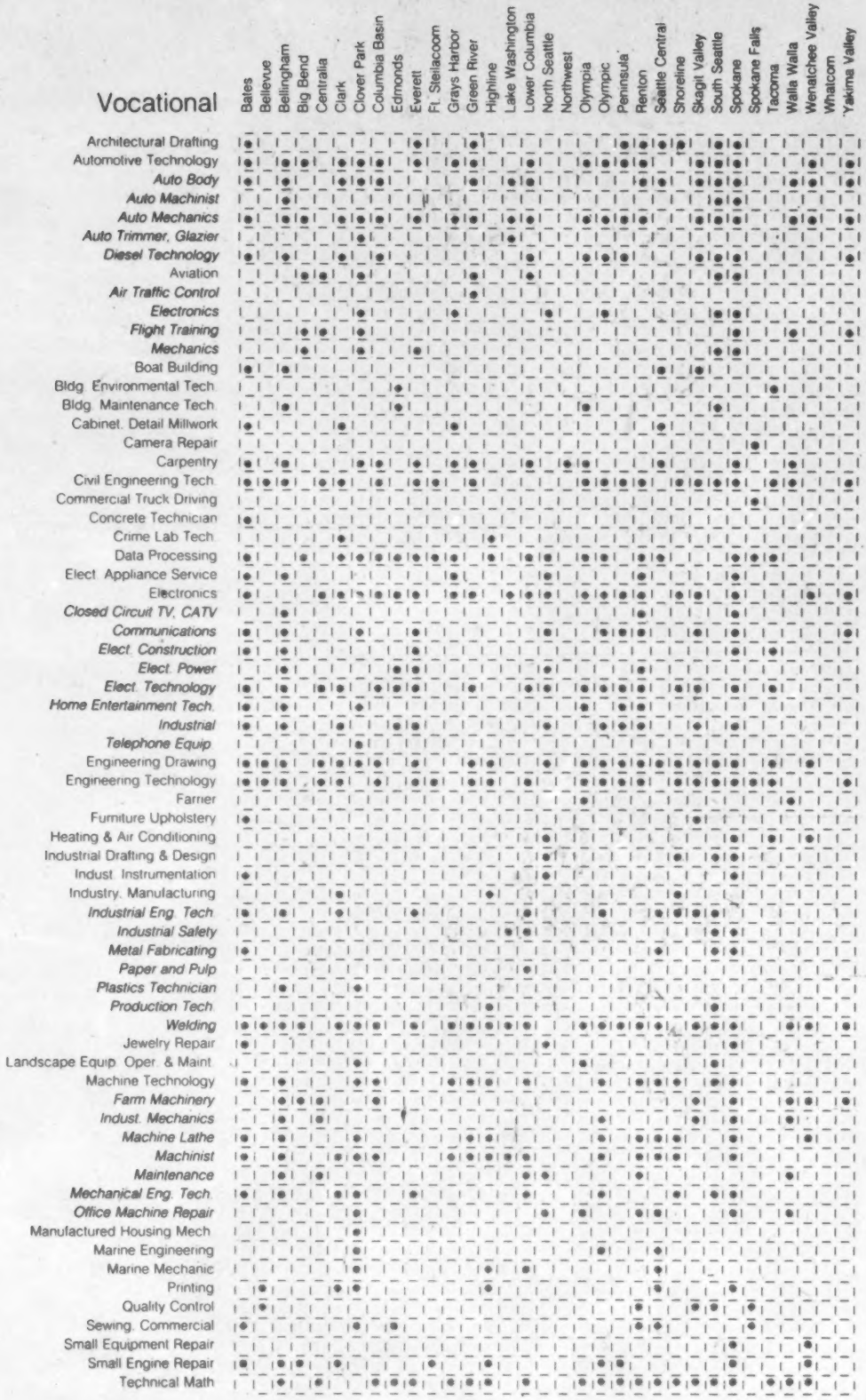
Jobs are listed in each of the three categories by the amount of preparation most workers typically have for the job. However, some workers enter jobs with varying amounts of preparation. Use the references in this *Guide* and check with your counselor to learn more about entry requirements for particular jobs.

4-Year Colleges

	CC	CWU	EWU	ESC	FWC	GU	PLU	PC	SMC	SPU	SU	UPS	UW	WWC	WSU	WWU	Whitman	Whitworth
Aerospace Studies		•						•					•	•		•		
Building Construction		•	•										•			•		
Computer Science			•	•		•				•		•	•			•	•	
Engineering						•				•	•		•	•	•			
Aeronautical, Astronautical													•					
Agricultural															•			
Ceramic													•					
Chemical													•		•			
Civil						•			•		•		•	•	•			
Electrical						•					•		•	•	•			
Industrial													•					
Mechanical						•					•		•	•	•			
Metallurgical													•		•			
Mining													•					
Nuclear													•					
Environ. Quality Control			•		•										•			
Industrial Arts	•	•											•	•	•	•		
Social Management of Technology			•										•					

Community Colleges and Technical Institutions
Transfer

	Bates	Bellevue	Bellingham	Big Bend	Centralia	Clark	Clover Park	Columbia Basin	Edmonds	Everett	Ft. Steilacoom	Grays Harbor	Green River	Highline	Lake Washington	Lower Columbia	North Seattle	Northwest	Olympia	Olympic	Peninsula	Renton	Seattle Central	Shoreline	Skagit Valley	South Seattle	Spokane	Spokane Falls	Tacoma	Walla Walla	Wenatchee Valley	Whatcom	Yakima Valley
Aeronautics													•			•									•					•		•
Architectural Drafting					•				•	•	•		•	•						•		•	•		•					•		
Computer Science				•	•	•			•	•	•	•		•		•			•			•		•			•	•	•	•		
Engineering		•		•	•	•		•	•	•	•	•	•	•		•			•	•		•	•	•			•	•	•	•	•	•


Vocational
Bates
Bellevue
Bellingham
Big Bend
Centralia
Clark
Clover Park
Columbia Basin
Edmonds
Everett
Ft. Steilacoom
Grays Harbor
Green River
Highline
Lake Washington
Lower Columbia
North Seattle
Northwest
Olympia
Olympic
Peninsula
Renton
Seattle Central
Shoreline
Skagit Valley
South Seattle
Spokane
Spokane Falls
Tacoma
Walla Walla
Wenatchee Valley
Whatcom
Yakima Valley
Architectural Drafting
Automotive Technology
Auto Body
Auto Machinist
Auto Mechanics
Auto Trimmer, Glazier
Diesel Technology
Aviation
Air Traffic Control
Electronics
Flight Training
Mechanics
Boat Building
Bldg. Environmental Tech.
Bldg. Maintenance Tech.
Cabinet, Detail Millwork
Camera Repair
Carpentry
Civil Engineering Tech.
Commercial Truck Driving
Concrete Technician
Crime Lab Tech.
Data Processing
Elect. Appliance Service
Electronics
Closed Circuit TV, CATV
Communications
Elect. Construction
Elect. Power
Elect. Technology
Home Entertainment Tech.
Industrial
Telephone Equip.
Engineering Drawing
Engineering Technology
Farrier
Furniture Upholstery
Heating & Air Conditioning
Industrial Drafting & Design
Indust. Instrumentation
Industry, Manufacturing
Industrial Eng. Tech.
Industrial Safety
Metal Fabricating
Paper and Pulp
Plastics Technician
Production Tech.
Welding
Jewelry Repair
Landscape Equip. Oper. & Maint.
Machine Technology
Farm Machinery
Indust. Mechanics
Machine Lathe
Machinist
Maintenance
Mechanical Eng. Tech.
Office Machine Repair
Manufactured Housing Mech.
Marine Engineering
Marine Mechanic
Printing
Quality Control
Sewing, Commercial
Small Equipment Repair
Small Engine Repair
Technical Math

Interest Area E: Outdoor

Occupational Chart

High school graduation and on-the-job-training	Up to two years of college or technical school	Three or more years of college
Animal trainer	Agricultural technician	Agronomist
Beekeeper	Animal technician	Animal scientist
Dock worker	Diver	Botanist
Farm equipment operator	Fire warden	Climatologist
Farm worker	Fish & Game warden	Conservationist
Fish hatchery worker	Florist	County extension agent
Fisher	Forestry technician	Ecologist
Gardener	Irrigator	Entomologist
Groomer	Landscape gardener	Environmental scientist
Groundskeeper	Lumber inspector	Floriculturist
Logger	Petroleum driller	Forest ranger
Miner	Soil conversation aide	Forester
Nursery worker	Surveyor	Geologist
Ranch worker	Timbercruiser	Horticulturist
Roustabout	Tree surgeon	Husbandry specialist
Sailor		Land use planner
Truck gardener		Landscape architect
Zoo caretaker		Marine biologist
		Meteorologist
		Mineralogist
		Oceanographer
		Park administrator
		Sedimentologist
		Soil scientist
		Wildlife specialist

Jobs are listed in each of the three categories by the amount of preparation most workers typically have for the job. However, some workers enter jobs with varying amounts of preparation. Use the references in this *Guide* and check with your counselor to learn more about entry requirements for particular jobs.

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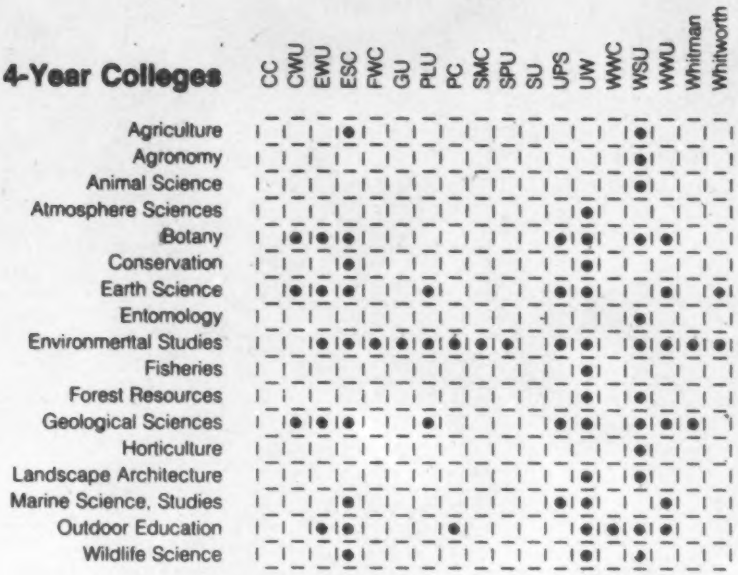
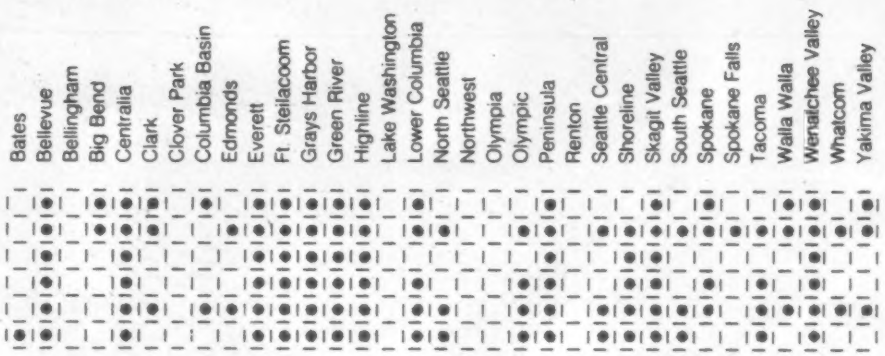
Programs of Study

4-Year Colleges

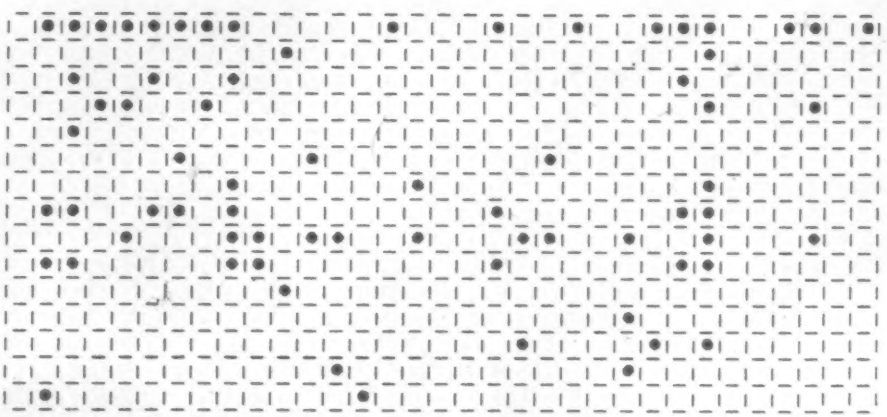


Community Colleges and Technical Institutions

Transfer



Vocational



Interest Area F: Science

Occupational Chart

High school graduation and on-the-job-training	Up to two years of college or technical school	Three or more years of college
Hospital orderly	Audiometrist	Astronomer
Optometric assistant	Dental assistant	Audiologist
Pet shop assistant	Dental hygienist	Bacteriologist
	Dietician aide	Biochemist
	EEG & EKG technician	Biologist
	Embalmer	Chemist
	Emergency medical technician	Chiropractor
	Health technician	Dentist
	Health therapist	Dietician
	Laboratory assistant	Food scientist
	Laboratory technician	Mathematician
	Licensed practical nurse	Medical technician
	Nurse aide	Nurse practitioner
	Optician	Optometrist
	Pharmacy aide	Osteopath
	Physical therapy aide	Pharmacist
	Radiologic technologist	Physical therapist
	Respiratory therapist	Physician
	Surgical technician	Physicians assistant
	Veterinary aide	Physicist
	Weather observer	Podiatrist
	X-ray technician	Public health nurse
		Registered nurse
		Sanitarian
		Speech pathologist
		Statistician
		Surgeon
		Veterinarian
		Zoologist

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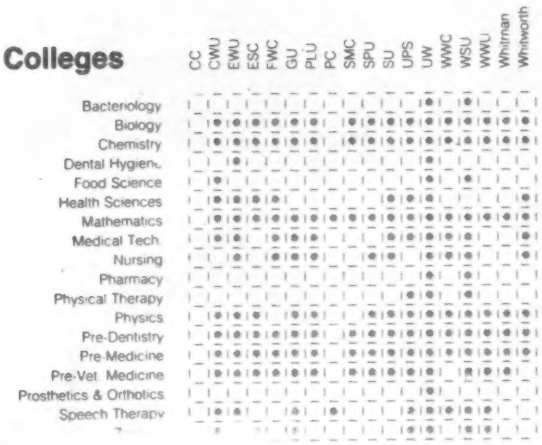
4-Year Colleges



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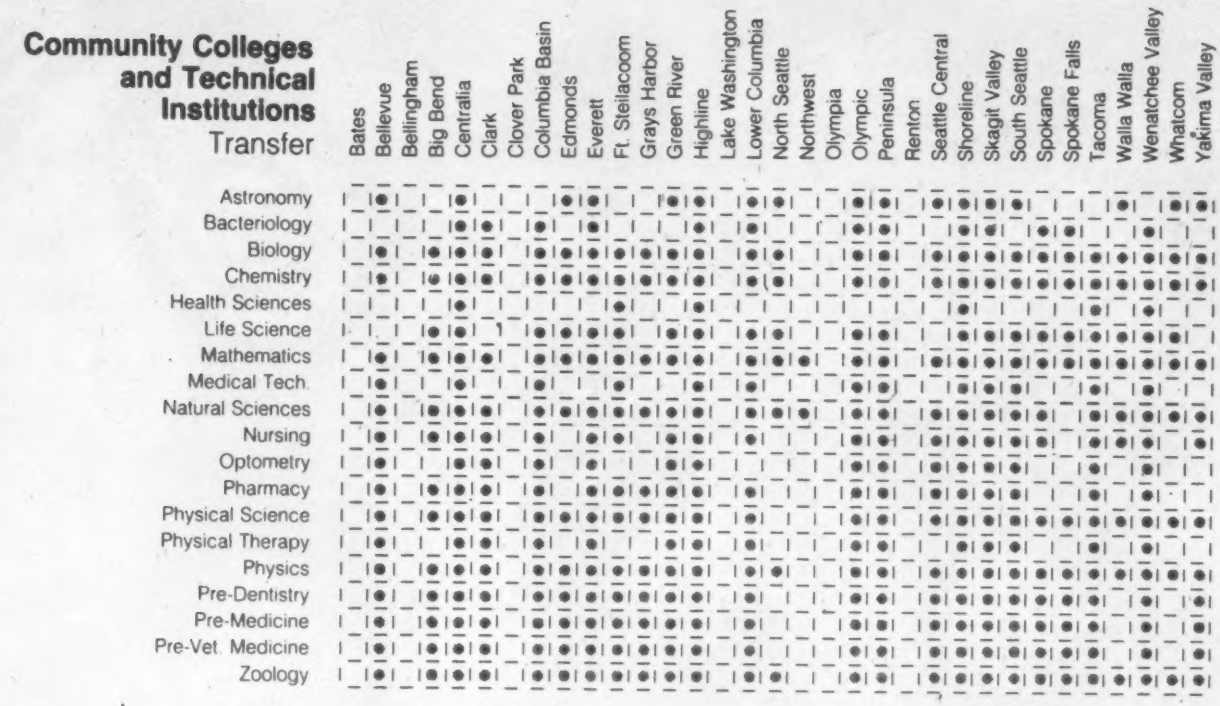
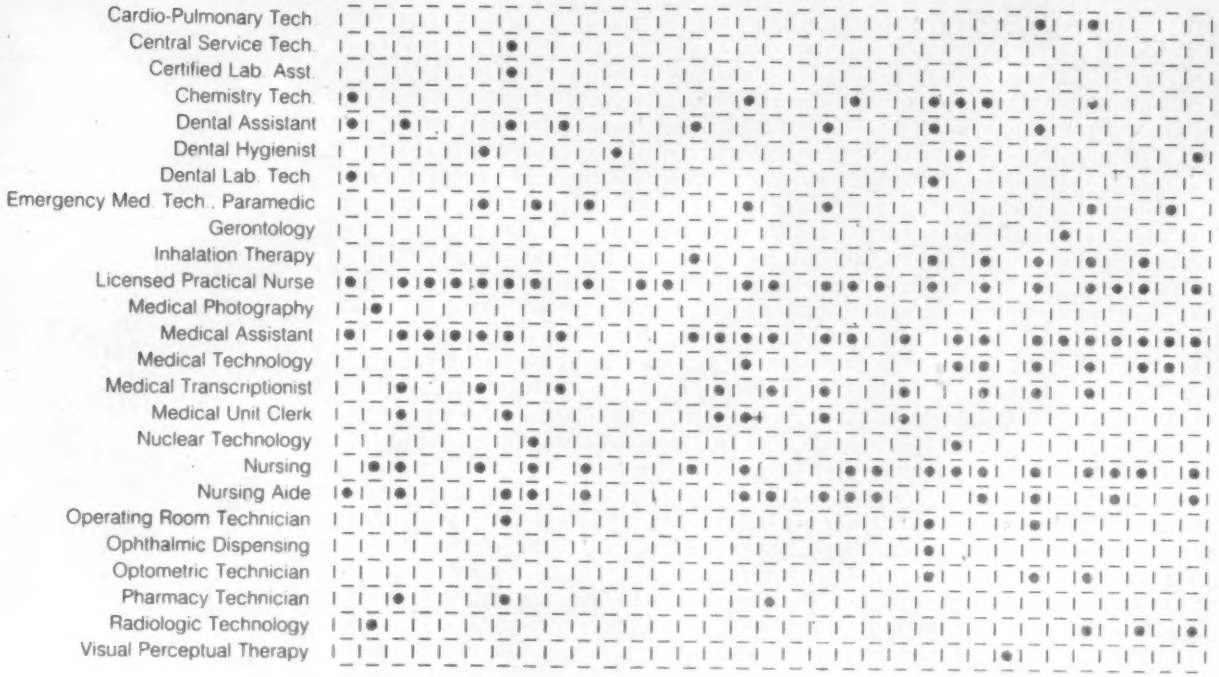
Community Colleges and Technical Institutions

Transfer



Vocational

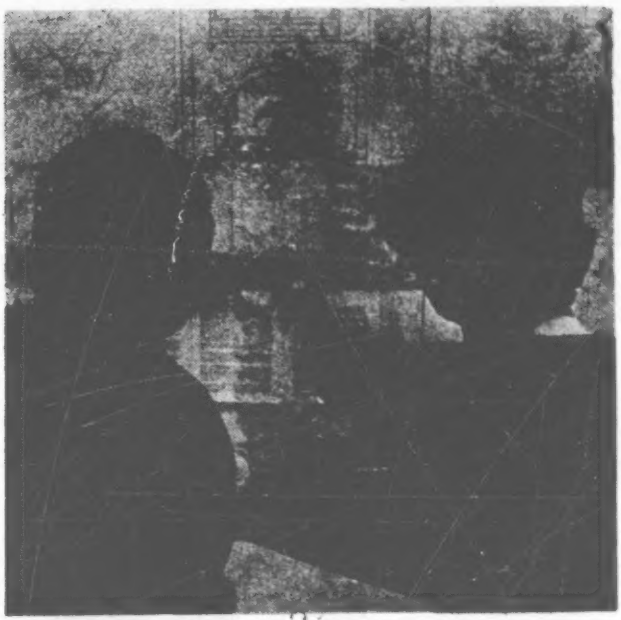


Interest Area G: General Cultural

Occupational Chart

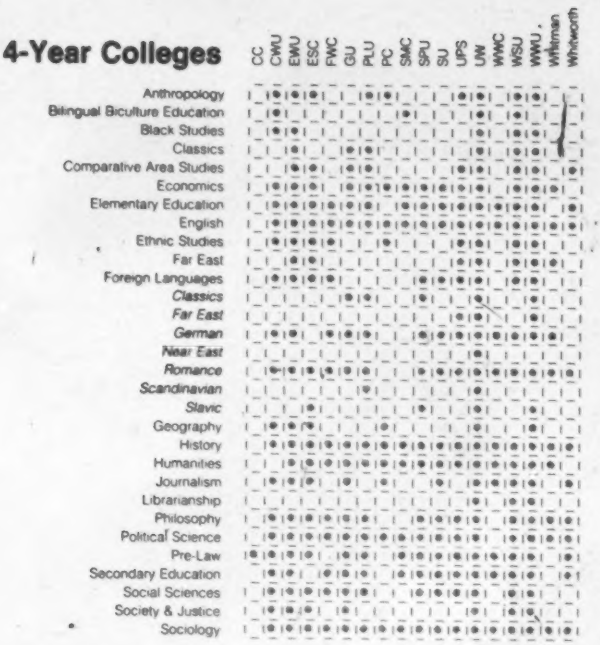
High school graduation and on-the-job-training	Up to two years of college or technical school	Three or more years of college
Copy reader	Editorial assistant	Anthropologist
Library page	Instructional assistant	Archaeologist
Newspaper copy assistant	Library assistant	Bibliographer
Newspaper stringer	Media technician	Columnist
	Paralegal assistant	Commentator
	Proofreader	Criminologist
	Teacher aide	Economist
		Editor
		Educational administrator
		Geographer
		Historian
		Interpreter
		Journalist
		Judge
		Law clerk
		Lawyer
		Librarian
		Linguist
		Political scientist
		Reporter
		Sociologist
		Teacher
		Technical writer

Jobs are listed in each of the three categories by the amount of preparation most workers typically have for the job. However, some workers enter jobs with varying amounts of preparation. Use the references in this *Guide* and check with your counselor to learn more about entry requirements for particular jobs.



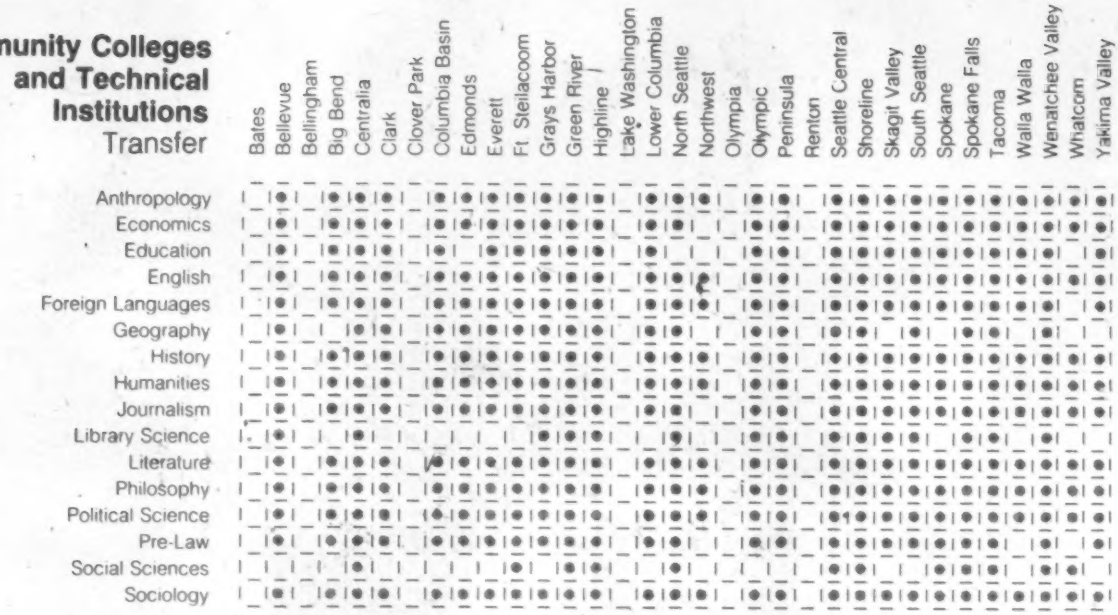
Programs of Study

4-Year Colleges



Community Colleges and Technical Institutions

Transfer



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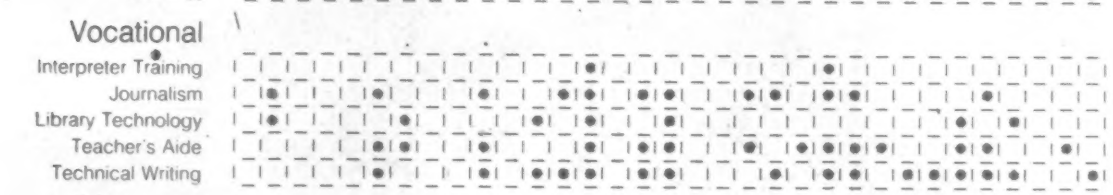

Interest Area H: Arts and Entertainment

Occupational Chart

High school graduation and on-the-job-training	Up to two years of college or technical school	Three or more years of college
Circus performer	Advertising copywriter	Actor
Sign painter	Dancer	Advertising writer
Stagehand	Decorator	Architect
Window trimmer	Disk jockey	Art critic
	Floor manager	Artist
	Floral designer	Athletic coach
	Graphic designer	Choreographer
	Leather worker	Composer
	Letterer	Concert musician
	Model	Fashion designer
	Paste-up artist	Illustrator
	Photographer	Music arranger
	Photographic technician	Music director
	Radio announcer	Music teacher
	Ski instructor	Musician
	Stage designer	Physical education teacher
	Window draper	Playwright
		Script writer
		Sculptor
		Singer
		Symphony conductor
		Television director
		Theatre director

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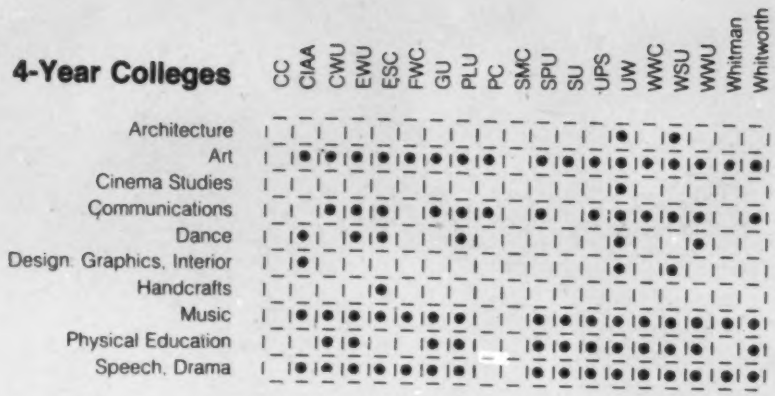
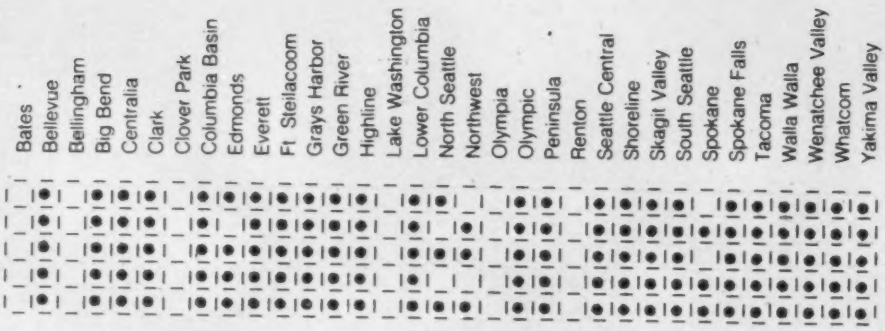
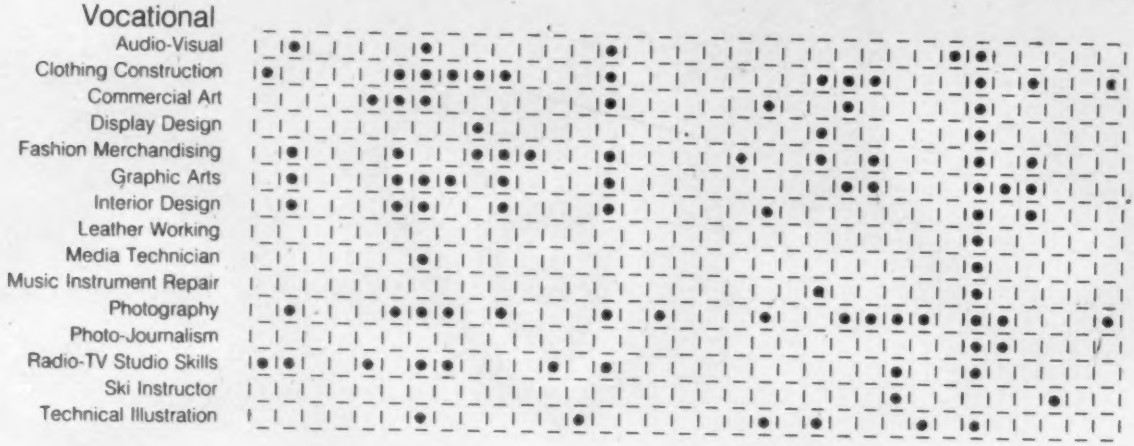
Programs of Study

4-Year Colleges



Community Colleges and Technical Institutions

Transfer



Vocational